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1. Report of the Auditor General for the year ended 31st March, 1912 Volume 1, Parts A to J. Volume II, Parts K to U. Volume III, Parts V to Y. Presented by Hon. Mr. White, 14th January, 1913.

Printed for distribution and sessional papers.

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2. The Public Accounts of Canada, for the fiscal year ended 31st March, 1912. Presented by Hon. Mr. White, 26th November, 1912.

Printed for distribution and sessional papers.

3. Estimates of sums required for the service of the Dominion for the year ending 31st March, 1914. Presented by Hon. Mr. White, 3rd February, 1913.

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4. Supplementary Estimates of sums required for the service of the Dominion for the year ending on the 31st March, 1913. Presented by Hon. Mr. White, 10th March, 1913.

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5. Supplementary Estimates of sums required for the service of the Dominion for the year ending on 31st March, 1914. Presented by Hon. Mr. White, 20th May, 1913.

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6. List of Shareholders in the Chartered Banks of the Dominion of Canada as on December 31, 1911. Presented by Hon. Mr. White, 26th November, 1912.

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7. Report on dividends remaining unpaid, unclaimed balances and unpaid drafts and bills of exchange in Chartered Banks of the Dominion of Canada, for five years and upwards prior to 31st December, 1911. Presented by Hon. Mr. White, 26th November, 1912.

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8. Report of the Superintendent of Insurance for year ended 1912. Presented by Hon. Mr. White.. .. ..*Printed for distribution nd sessional papers.*

9. Abstract of Statements of Insurance Companies in Canada for the year ended 1912. Presented by Hon. Mr. White.. .. .. ..*Printed for distribution and sessional papers.*

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10. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1912. (Part I.—Canadian Trade). Presented by Hon. Mr. Foster, 30th January, 1913. *Printed for distribution and sessional papers.*

10*a*. Report of the Department of Trade and Commerce, for the year ended 31st March, 1912. (Part II.—Canadian Trade with (1) France, (2) Germany, (3) United Kingdom, and (4) United States). Presented by Hon. Mr. Foster, 12th December, 1912. *Printed for distribution and sessional papers*

10*b*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1912. (Part III.—Canadian Trade with Foreign Countries, except France, Germany, the United Kingdom and United States). Presented by Hon. Mr. Foster, 15th January, 1913.. .. ..*Printed for distribution and sessional papers.*

10*c*. Report of the Department of Trade and Commerce, for the fiscal year ended 31st March, 1912. (Part IV.—Miscellaneous Information). Presented by Hon. Mr. Reid, 17th February, 1913.. ... .*Printed for distribution and sessional papers.*

10*d*. Report of the Board of Grain Commisioners for Canada. Presented by Hon. Mr. Foster, 3rd February, 1913.. .. ..*Printed for distribution and sessional papers.*

10*e*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March 1912. (Part VI.—Subsidized Steamship Services). Presented, 1913. *Printed for distribution and sessional papers.*

10*f*. Report of Trade and Commerce for fiscal year ended 31st March, 1912. (Part VII.—Trade of Foreign Countries, Treaties and Conventions). Presented, 1913. *Printed for distribution and sessional papers*

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13. Report of the Department of Inland Revenue for year ended 31st March, 1912. (Part II.—Inspection of Weights and Measures, Gas and Electricity). Presented by Hon. Mr. Nantel, 25th November, 1912.. .. ..*Printed for distribution and sessional papers.*

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16. Report of the Director and Officers of the Experimental Farms for the year ending 31st March, 1912. Presented by Hon. Mr. Burrell, 14th January, 1913.
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17. Criminal Statistics for the year ended 30th September, 1911, (Appendix of the Report of the Minister of Agriculture, for the year 1911). Presented by Hon. Mr. Borden, 2nd June, 1913... .. ..*Printed for distribution and sessional papers.*

18. Return of the Twelfth General Election for the House of Commons of Canada, held on the 14th and 21st of September, 1911. Presented by Hon. The Speaker, 27th November, 1912.. .. ..*Printed for distribution and sessional papers.*

18a. Return of By-Elections (Twelfth Parliament) for the House of Commons of Canada, held during the year 1912. Presented by Hon. The Speaker, 10th March, 1913.
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19. Report of the Minister of Public Works on the works under his control for the fiscal period ended 31st March, 1912. Part I. Presented by Hon. Mr. Rogers, 4th December, 1912. Part II. Ottawa River Storage and Geodetic Levelling.
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21a. Eleventh Report of the Geographic Board of Canada, for the year ending 30th June, 1912. Presented by Hon. Mr. Hazen, 11th April, 1913.
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21c. Supplement to Forty-fifth Report of the Department of Marine and Fisheries, for fiscal year 1911-12,—Marine Branch—Influence of Icebergs and Land on the temperature of the Sea. Presented by Hon. Mr. Hazen, 17th February, 1913.
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22. Forty-fifth Annual Report of the Department of Marine and Fisheries, 1912,—Fisheries. Presented by Hon. Mr. Hazen, 5th December, 1912.
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28. Report of the Royal Northwest Mounted Police, 1912. Presented by Hon. Mr. Borden, 14th January, 1913... .. ..*Printed for distribution and sessional papers.*

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30. The Civil Service List of Canada, 1912. Presented by Hon. Mr. Coderre, 3rd December, 1912.. .. ..*Printed for distribution and sessional papers.*

31. Fourth Annual Report of the Civil Service Commission of Canada for the period from 1st September, 1911, to 31st August, 1912. Presented by Hon. Mr. Coderre, 24th January, 1913.. .. ..*Printed for distribution and sessional papers.*

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35. Report of the Militia Council for the fiscal year ending 31st March, 1913. Presented by Hon. Mr. Hughes, 14th January, 1913. ..*Printed for distribution and sessional papers.*

36. Report of the Department of Labour for the fiscal year ending 31st March, 1912. Presented by Hon. Mr. Crothers, 28th November, 1912.
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36a. Fifth Report of the Registrar of Boards of Conciliation and Investigation of the proceedings under "The Industrial Disputes Investigation Act, 1907," for the fiscal year ending 31st March, 1912. Presented by Hon. Mr. Crothers, 28th November, 1912.
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38. Report of the Department of the Naval Service, for the fiscal year ending 31st March, 1912. Presented by Hon. Mr. Hazen, 28th November, 1912.
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39. "Miscellaneous Unforeseen Expenses," from the 1st April, to the 21st November, 1912, in accordance with the Appropriation Act of 1912. Presented by Hon. Mr. White, 25th November, 1912... .. ..*Not printed*

40. Statement of Treasury Board over-rulings, under Section 44, Consolidated Revenue and Audit Act. Presented by Hon. Mr. White, 26th November, 1912... .. ..*Not printed.*

41. Statement in pursuance of Section 17 of the Civil Service Insurance Act, for the year ending 31st March, 1912. Presented by Hon. Mr. White, 26th November, 1912.
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42. Statement of Receipts and Expenditures of the Ottawa Improvement Commission, to 31st March, 1912. Presented by Hon. Mr. White, 26th November, 1912.....*Not printed.*

43. Statement of Governor General's Warrants issued since the last Session of Parliament on account of 1912-13. Presented by Hon. Mr. White, 26th November, 1912.
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44. Statement of Superannuation and Retiring Allowances in the Civil Service during the year ending 31st December, 1912, showing name, rank, salary, service, allowance and cause of retirement of each person superannuated or retired, also whether vacancy is filled by promotion or by appointment, and salary of any new appointee. Presented by Hon Mr. White, 26th November, 1912.. .. ..*Not printed*

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45*a*. Return to lands sold by the Canadian Pacific Railway Company during the year which ended on the 1st October, 1912. Presented by Hon. Mr. Roche, 14th January, 1913.. .. ..*Not printed.*

45*b*. Return to an Address to His Royal Highness the Governor General of the 27th January, 1913, for a copy of all applications made by the Canadian Pacific Railway Company for authorization to make new issue of stock, addressed to the Governor in Council, and of all correspondence with regard to the same. Presented 16th April, 1913, by Sir Wilfrid Laurier.. .. ..*Not printed*

46. Return to an Order of the House of the 18th March, 1912, for a copy of all reports made by the Inspector of Agents for placing Immigrants, both domestic servants and farm labourers, in Ontario and Quebec, during the years 1910 and 1911. Presented 27th November, 1912, by Mr. Sutherland.. .. ..*Not printed.*

47. Return to an Order of the House of the 11th March, 1912, for a copy of all letters, telegrams and other papers in connection with complaints of whatever nature against Commission Agents for placing farm labourers in Ontario, also officials connected with any agency in Ontario, during the year 1910 and 1911. Presented 27th November, 1912 by Mr. Sutherland.. .. ..*Not printed*

48. Copy of Order in Council No. P. C. 1275, dated 13th May, 1912, "Award of compensation to men belonging to the Royal Canadian Navy, who may be permanently disabled though injuries or illness contracted during drill, training or on duty." Presented by Hon. Mr. Hazen, 27th November, 1912.. .. ..*Not printed.*

48*a*. Copies of plans included in the tender of Messrs. Cammel, Laird & Company, dated 29th April, 1911, for the construction of ships for the Canadian Naval Service. Presented by Hon. Mr. Hazen, 18th December, 1912.. .. ..*Not printed.*

48*b*. An Act respecting the Naval Service of Canada." (Copy of Order in Council, No. P. C. 126 dated 20th January, 1913, "Amendment to the Regulations for the Entry of Naval Cadets)." Presented by Hon. Mr. Hazen, 4th February, 1913.. ..*Not printed.*

49. Regulations under "The Destructive Insect and Pest Act." Presented by Hon. Mr. Burrell, 28th November, 1912.. .. ..*Not printed.*

50. Statement of the affairs of the Royal Society of Canada, for the year ended 30th April, 1912. Presented by Hon. Mr. White, 29th November, 1912.. .. ..*Not printed.*

51. Ordinances of the Yukon Territory passed by the Yukon Council in the year 1912. Presented by Hon. Mr. Coderre, 3rd December, 1913.. .. ..*Not printed*

52. Return of Orders in Council which have been published in the *Canada Gazette*, between 1st August, 1911, and 30th September, 1912, in accordance with the provisions of Section 77 of the Dominion Lands Act, Chapter 20 of the Statutes of Canada, 1908. Presented by Hon. Mr. Roche, 5th December, 1912.. .. ..*Not printed.*

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52*a*. Return of Orders in Council passed between the 1st August, 1911, and 30th September, 1912, in accordance with the provisions of Section 5 of the Dominion Land Survey Act, Chapter 21, 7-8 Edward VII. Presented 5th December, 1912, by Hon. Mr. Roche *Not printed.*

52*b*. Return of Orders in Council which have been passed and published in the *Canada Gazette* and in the British Columbia *Gazette*, between 1st August, 1911, and 30th September, 1912, in accordance with provisions of Subsection (*d*) of Section 38 of the regulations for the survey, administration, disposal and management of Dominion Lands within the 40-mile Railway Belt in the Province of British Columbia. Presented by Hon. Mr. Roche, 5th December, 1912.. .. ..*Not printed*

52*c*. Return to an Order of the House of the 24th February, 1913, for a copy of all regulations issued by the Minister of the Interior, relating to the disposition of Dominion lands between 8th April, 1905, and 12th October, 1911. Presented by Hon. Mr. Roche. 25th March, 1913.. .. ..*Not printed.*

53. A detailed statement of all bonds or securities registered in the Department of the Secretary of State of Canada, since last return (28th November, 1911) submitted to the Parliament of Canada under Section 32 of Chapter 19, of the Revised Statutes of Canada, 1906. Presented by Hon. Mr. Coderre, 4th December, 1912.. .. ..*Not printed.*

54. Annual Return respecting Trade Unions under Chapter 125, R.S.C., 1906. Presented by Hon. Mr. Coderre, 4th December, 1912... .. ..*Not printed.*

55. Deliberation of the Canada-West Indies Conference, and Agreement between Canada and certain of the West India Colonies. Presented by Hon. Mr. Foster, 4th December, 1912.. .. ..*Printed for distribution and sessional papers*

56. Orders in Council passed between the 1st August, 1911, and 30th September, 1912, in accordance with the provisions of the Rocky Mountains Park Act, Chapter 60, Revised Statutes of Canada, 1906. Presented by Hon. Mr. Rogers, 4th December, 1912. *Not printed.*

56*a*. Return of Orders in Council passed between the 1st August, 1911, and 30th September, 1912, in accordance with the provisions of the Forest Reserves and Park Act, Section 19, of Chapter 10, 1-2 George V. Presented by Hon. Mr. Roche, 5th December, 1912. *Not printed.*

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57. Report of the Public Service Commission. Presented by Hon. Mr. Borden, 9th December, 1912. Parts I, II, and III.. .. .. ..*Printed for distribution and sessional papers.*

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57*a*. Report on the organization of the Public Service of Canada, by Sir George Murray. Presented by Hon. Mr. Borden, 18th December, 1912. *Printed for distribution and sessional papers.*

58. Report of the proceedings for the preceding year of the Commissioners of Internal Economy of the House of Commons, pursuant to Rule 9. Presented by Hon. The Speaker, 9th December, 1912.. .. ..*Not printed.*

59. Schedules of Trade Transactions between the West Indies and Canada, the United States and the United Kingdom, compiled from the West Indian blue books and statistics. Presented by Hon. Mr. Foster, 12th December, 1912. *Printed for distribution and sessional papers.*

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59*a*. Trade Statistics of Imports and Exports in possession of the Government, *re* British West Indies. (*Senate*).. .. ..*Not printed.*

60. Return showing correspondence concerning the calling for tenders for the Ships of War of Canada, together with copies of tenders. Presented by Hon. Mr. Hazen, 12th December, 1912.. .. ..*Not printed.*

61. Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence, telegrams, reports and documents relating to the dismissal of John R McDonald, Heatherton, Antigonish County, as Indian agent for the district including the Counties of Antigonish and Guysborough, and the appointment of his successor. Presented 4th January, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61*a*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Dr. C. P. Bissett, Physician to the Indians at Salmon River, Richmond County, N.S. Presented 14th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*b*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges. correspondence, letters, telegrams and other documents relating to the dismissal of Michael Murphy, postmaster at Point Micheau, Richmond County, N.S. Presented 4th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*c*. Return to an Order of the House of the 9th December, 1912, for copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of David A. McLeod, Postmaster at Cleveland, Richmond County, N.S. Presented 14th January.—*Mr. Kyte*.. .. ..*Not printed.*

61*d*. Return to an Order of the House of the 4th December, 1912, for a copy of all papers. letters, complaints, telegrams, reports, and other documents in the possession of the Post Office Department relating to the dismissal of John Milward, Postmaster at Stormont, Guysborough County, N.S. Presented 14th January, 1913.—*Mr. Sinclair.*
Not printed.

61*e*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents, relating to the dismissal of Kenneth F. McAskill, Postmaster at Loch Lomond, Richmond County, N.S. Presented 14th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*f*. Return to an Address to His Royal Highness the Governor General of the 25th March, 1912, for a copy of all letters, telegrams, memorandums and Orders in Council, relating to the dismissal of Mr. W. W. Hayden, late wharfinger of the government wharf at Digby, Nova Scotia. Presented 14th January, 1913.—*Mr. MacLean (Halifax).*
Not printed.

61*g*. Return to an Order of the House of the 11th December, 1912, for a copy of all complaints and charges made against W. B. Langley, assistant at Lobster Hatchery, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal and the appointment of a successor. Presented 14th January, 1913.—*Mr Sinclair*.. .. ..*Not printed.*

61*h*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges. correspondence, letters, telegrams and other documents relating to the dismissal of Fred. E. Cox, engineer lobster hatchery at Isaac's Harbour, Guysborough County, N.S., and of the evidence taken and report of investigation held by H. P. Duchemin in regard to the same. Presented 14th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

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61*i*. Return to an Order of the House of the 11th December, 1912, for a copy of all complaints and charges made against Simon Hodgson, engineer lobster hatchery at Isaac's Harbour, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal and the appointment of a successor. Presented 14th January 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61j. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Henry Henlow, chief engineer at lobster hatchery at Canso, Guysborough County, N.S. Presented 14th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*k*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of H. C. V. LeVatte, harbour master at Louisburg, Cape Breton South, N.S., and of evidence taken and report of investigations held by H. P. Duchemin, in regard to the same. Presented 14th January, 1913.—*Mr. Carroll*.. .. ..*Not printed.*

61*l*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John Cummings, assistant at the lobster hatchery at Isaac's Harbour, Nova Scotia, and of evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same. Presented 14th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*m*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of W. G. Matthews, coxswain, lifeboat crew at Canso, Guysborough County, N.S., and all evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 14th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*n*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relating to the dismissal of Joseph Shean, harbour master at North Sydney, N.S., in the riding of North Cape Breton and Victoria. Presented 14th January, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61*o*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents, relating to the dismissal of George H. Sampson, keeper of the storm signal at Lower L'Ardoise, Richmond County, N.S. Presented 14th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*p*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Alexis Vigneau, captain of the patrol boat at Arichat, Richmond County, N.S. Presented 14th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*q*. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all correspondence, Orders in Council and all other papers or documents in any way relating to the dismissal of Emeri Thivierge, from the position of fisheries inspector for the Counties of Prescott and Russell. Presented 14th January, 1913.—*Mr. Murphy*.. .. ..*Not printed.*

61*r*. Return to an Order of the House of the 9th December, 1912, for a return showing all the public officers of the Inland Revenue Department in the County of St. Jean Iberville, removed by the present Government since 1st May, 1912, together with the names and duties of such persons, the reasons of their dismissal, the nature of the

CONTENTS OF VOLUME 27—*Continued.*

complaints against them, the names of the persons who brought these complaints; also a copy of all correspondence relating thereto, and of the reports of inquiries in the cases where such have been held. Presented 14th January, 1913.—*Mr. Demers.*
Not printed.

61*s*. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, complaints, petitions, memoranda, notes of evidence, reports of investigations and other documents in the possession of the Department of Inland Revenue regarding the dismissal of J. Fabien Bugeaud, Bonaventure, Quebec, assistant inspector of weights and measures in the Quebec district, and the appointment of his successor or successors, with the names, residence, salaries and duties; also of all documents relating to A. B. Caldwell, New Carlisle, Quebec, joint assistant inspector with J. Fabien Bugeaud, and the duties assigned to him, together with a copy of all recommendations for said new appointment. Presented 14th January, 1913.—*Mr. Marcil (Bonaventure)*.. .. ..*Not printed.*

61*t*. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all correspondence, Orders in Council and all other papers or documents in any way relating to the dismissal of Duncan McArthur, from the Annuities Branch, while the said branch was attached to the Department of Trade and Commerce. Presented 15th January, 1913.—*Mr. Murphy*.. .. ..*Not printed.*

61*u*. Return to an Order of the House of the 26th February, 1912, for a copy of all documents, letters, requests, reports, recommendations and evidence taken under investigation by Dr. Shentliff, relating to the dismissal of Charles O. Jones, postmaster of Bedford, County of Missisquoi. Presented 15th January, 1913.—*Mr. Kay.*
Not printed.

61*v*. Return to an Order of the House of the 1st April, 1912, for a copy of all letters, telegrams, complaints or other papers or documents in the possession of the Government or any department thereof, relating to the dismissal of Archibald Barss, postmaster, New Harbour, West, Guysborough County, N.S. Presented 15th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*w*. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, documents, recommendation and other reports respecting the dismissal of Dr. A. Allaire as surgeon of the penitentiary of St. Vincent de Paul, and also respecting the payments of his gratuities, superannuation or retiring allowance. Presented 15th January, 1913.—*Mr. Wilson (Laval)*.. .. ..*Not printed*

61*x*. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, documents, recommendations and reports respecting the dismissal of Oscar Beauchamp as warden of the penitentiary of St. Vincent de Paul, and also respecting the payments of his gratuities, superannuation or retiring allowance. Presented 15th January, 1913.—*Mr. Wilson (Laval)*.. .. ..*Not printed.*

61*y*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of John McDonald, freight handler and checker Intercolonial railway at Sydney Mines Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 16th January, 1913.—*Mr. Mackenzie*.. .. ..*Not printed.*

61*z*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, correspondence, documents and reports relating to the dismissal of Allan Kinney, of Linwood, Antigonish County, Nova Scotia, a sectionman on the Intercolonial rail-

CONTENTS OF VOLUME 27—*Continued.*

way, and for a statement in detail of the expenses in connection with the investigation of the charges against him. Presented 16th January, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61*aa*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, correspondence, documents and reports relating to the dismissal of Charles Landry, of Pomket, Antigonish county, Nova Scotia, a sectionman on the Intercolonial railway, and for a statement in detail of the expenses connected with the investigation of the charges against him. Presented 16th January, 1913.—*Mr. Chisholm (Antiginish)*.. .. ..*Not printed.*

61*bb*. Return to an Order of the House of the 4th December, 1912, for a copy of all papers, documents, reports, correspondence, &c., relating to the dismissal of Patrick Decoste, an employee on the ferry steamer *Scotia* between Mulgrave and Point Tupper on the Intercolonial railway. Presented 16th January, 1913.. .. ..*Not printed.*

61*cc*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Harry E. McDonald, assistant engineer at St. Peters Canal, Richmond County, N.S Presented 13th January, 1913.—*Mr. Kyte.*

61*dd*. Return to an order of the House of the 9th December, 1912, for a copy of all letters, papers, documents, telegrams, and charges relating to a complaint against Neil Ross sectionman on the Intercolonial railway at West River, County of Pictou, and of the evidence taken at the investigation, of the report of the commissioner thereon, and of all letters, papers or other documents relating to the appointment of his successor. Presented 16th January, 1913.—*Mr. Macdonald*.. .. ..*Not printed.*

61*ee*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, correspondence, documents and reports relating to the dismissal of James Armstrong, of Heatherton, Antigonish County, N.S., a sectionman on the Intercolonial railway, and for a statement in detail of the expenses connected with the investigation of the charges against him. Presented 16th January, 1913.—*Mr. Chisholm (Antigonish).* *Not printed.*

61*ff*. Return to an Order of the House of the 4th December, 1912, for a copy of all letters, telegrams and other documents, relating to the dismissal of Thomas J. Gray, as car inspector on the Intercolonial railway at Westville, County of Pictou. Presented 16th January, 1913.—*Mr. Macdonald*.. .. ..*Not printed.*

61*gg*. Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence, telegrams and reports relating to the dismissal of Colin Macdonald, of James River Station, County of Antigonish, as Intercolonial sectionman, and the appointment of his successor. Presented 16th January, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61*hh*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of A. T. Gannon, car repairer and inspector Intercolonial railway at North Sydney, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 16th January, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*ii*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, correspondence, documents, and reports relating to the dismissal of Huber Myatte, Tracadie, Antigonish County, Nova Scotia, a sectionman on the Intercolonial railway and for a statement in detail of the expenses connected with the investigation of the charges against him. Presented 16th January, 1913.—*Mr. Chisholm* (*Antigonish*). *Not printed.*

61*jj*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, correspondence, documents, and reports relating to the dismissal of John McDonnell, Afton Station, Antigonish County, Nova Scotia, a sectionman on the Intercolonial railway, and for a statement in detail of the expenses connected with the investigation of the charges against him. Presented 17th January, 1913.—*Mr. Chisholm* (*Antigonish*).. .. ..*Not printed.*

61*kk*. Return to an Order of the House of the 9th December, 1911, for a copy of all letters, correspondence, documents and reports relating to the dismissal of William Landry, of Pomket, Antigonish County, Nova Scotia, a section foreman of the Intercolonial railway, and for a statement in detail of the expenses connected with the investigation of the charges againt him. Presented 17th January, 1913.—*Mr. Chisholm* (*Antigonish*).. .. ..*Not printed.*

61*ll*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, telegrams and other documents relative to the dismissal of D. J. McDougall, section foreman, Intercolonial railway, Grand Narrows, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 17th January, 1913.—*Mr. McKenzie.* *Not printed.*

61*mm*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Dan. A. Coffey, lockman at St. Peter's canal, Richmond County, N.S., and of the evidence taken and of the reports of investigation held by H. P. Duchemin, in regard to the same, and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Also, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of W. A. McNeil, lockman at St. Peter's canal, Richmond County, N.S., and of the evidence taken and of the report of investigation held by H. P. Duchemin in regard to the same, and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 17th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*nn*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John P. Meagher, foreman deckhand on steamship *Scotia*, Mulgrave, Guysborough County, N.S., and of all evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 17th January, 1913.—*Mr. Sinclair*.. .. .. ..*Not printed.*

61*oo*. Return to an Order of the House of the 4th December, 1912, for a copy of all letters, telegrams, evidence taken, reports, &c., and of all correspondence between the Postmaster General and officers of his department, and James Gibson, ex-postmaster of Alameda, Sask., in connection with the instructions sent him to hand the office over to E. Cronk. Presented 17th January, 1913.—*Mr. Turriff*.. .. ..*Not printed.*

61*pp*. Return to an Order of the House of the 11th December, 1912, for a copy of all papers, documents and correspondence relating to the dismissal of Captain C. E. Miller from the 75th Regiment. Presented 17th January, 1913.—*Mr. Maclean* (*Halifax*). *Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*qq*. Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence, letters and telegrams relating to the dismissal of J. N. N. Poirier, collector of excise at Victoriaville, Quebec, and also of the inquiry made by N. Garceau, by the Minister of Inland Revenue, and especially of two affidavits given by Ludger Duchette and Joseph Faucher. Presented 17th January, 1913.—*Mr. Brouillard.* *Not printed.*

61*rr*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Abraham Astephen, of North Sydney, N.S., interpreter Immigration Department at North Sydney, N.S., in the riding of North Cape Breton and Victoria. Presented 17th January, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61*ss*. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all correspondence, Orders in Council, and all other papers or documents in any way relating to the dismissal of Robert Dow from the Immigration Branch of the Department of the Interior at Ottawa. Presented 17th January, 1913. —*Mr. Murphy*.. .. ..*Not printed.*

61*tt*. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, correspondence, &c., relating to the dismissal of John Ware of the Immigration Branch of the Interior Department at Halifax, N.S. Presented 17th January, 1913.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

61*uu*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Richard Hickey, agent Immigration Department at North Sydney, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same, and a detailed statement of the expenses of such investigation. Presented 17th January, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61*vv*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges correspondence, letters, telegrams, and other documents relative to the dismissal of Dr. J. W. McLean, of North Sydney, N.S., medical examiner, Immigration Department at North Sydney, N.S., in the riding of North Cape Breton and Victoria. Presented 17th January, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61*ww*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John A. McRea, lightkeeper, at Margaree Island, Inverness County, Nova Scotia, of the evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 17th January, 1913.—*Mr. Chisholm (Inverness)*.. .. .. ..*Not printed.*

61*xx*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Thomas Brymer, lightkeeper at Lower L'Ardoise, Richmond County, N.S. Presented 17th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*yy*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges correspondence, letters, telegrams and other documents relating to the dismissal of Dominique Boudrot, buoy contractor, at Petit de Grat, Richmond County, N.S. Presented 17th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*zz*. Return to an Order of the House of the 4th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents concerning the dismissal of Frederick F. Doucet, keeper of the lighthouse at the entrance of the harbour of Caraquet, County of Gloucester, and the nomination of his successor. Presented 17th January, 1913.—*Mr. Turgeon*.. .. ..*Not printed.*

61*aaa*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of W. H. Henlow, keeper of storm drum, Liscomb, Guysborough County, N.S. Presented 17th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*bbb*. Return to an Order of the House of the 4th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of David Falconer, lightkeeper at Cariboo Island, County of Pictou. Presented 17th January, 1913.—*Mr. Macdonald*.. .. ..*Not printed.*

61*bbb*. Return to an Order of the House of the 4th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of M. Wilson Lawlor, harbour commissioner at North Sydney, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 17th January, 1913.—*Mr. McKenzie.*
Not printed.

61*ddd*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of P. J. McDonald, harbour commissioner at North Sydney, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 17th January, 1913.—*Mr. McKenzie.*
Not printed.

61*eee*. Return to an Order of the House of the 9th December, 1912, for a return showing: 1. The names of all lightkeepers in the Province of Nova Scotia who were dismissed from office or employment since 10th October, 1911, together with the date of each dismissal. Presented 17th January, 1913.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

61*fff*. Return to an Order of the House of the 4th December, 1912, for a return showing the detail and number of dismissals from public offices in the Department of Marine and Fisheries to this date in the County of Bonaventure, the names of the dismissed occupants, the reasons for their dismissal, the complaints against such officials and a copy of all correspondence with respect to the same, and of all reports of investigations where such were held; as well as a list of the new appointments made by the department, with names, residences, salaries and duties, and a copy of all recommendations of such appointments. Presented 17th January, 1913.—*Mr. Marcil (Bonaventure).*
Not printed.

61*ggg*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of H. L. Tory, fishery officer at Guysborough, Guysborough County, N.S., and of all evidence taken, and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of the investigation. Presented 17th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*hhh*. Return to an Order of the House of the 4th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents in the possession of the Department of Marine and Fisheries relating to the dismissal of John W. Davis, fishery officer, Guysborough, N.S. Presented 17th January, 1913.—*Mr. Sinclair.*
Not printed.

CONTENTS OF VOLUME 27—*Continued.*

61*jjj*. Return to an Order of the House of the 4th December, 1912, for a copy of all charges correspondence, letters, telegrams and other documents relating to the dismissal of Martin Bourque, lightkeeper at River Bourgeois, Richmond County, N.S., and of the evidence taken and of the report of the investigation held by H. P. Duchemin in regard to the same, and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 17th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*jjj*. Return to an Order of the House of the 4th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Frederick Poirier, buoy contractor, at Descouse, Richmond County, N.S. Presented 17th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*kkk*. Return to an Order of the House of the 4th December, 1912, for a copy of all papers. letters, telegrams and petitions for and against the dismissal of Dr. George Pinault, as medical health officer of the Mic-Mac Indian reserve, at Ste. Anne de Restigouche, Bonaventure County, Quebec, and of all documents relating to the appointment of a successor, with the name, residence, salary and duties of the new appointee. Presented 20th January, 1913.—*Mr. Marcil*.. .. ..*Not printed.*

61*lll*. Return to an Order of the House of the 1st April, 1912, for a copy of all papers, letters, &c., concerning the dismissal of Frederick Veit, employed by the Department of Marine and Fisheries in the County of Gaspé. Presented 20th January, 1913.—*Mr. Lemieux*.. .. ..*Not printed.*

61*mmm*. Return to an Order of the House of the 1st April, 1912, for a copy of all letters. petitions, complaints, declarations and other documents in the possession of the Department of Marine and Fisheries, relating to the dismissal of Mr. Alfred Lalonde, employed in the warehouse of the Government yards at St. Joseph de Sorel and the appointment of his successor. Presented 20th January, 1913.—*Mr. Cardin*..*Not printed.*

61*nnn*. Return to an Order of the House of the 1st April, 1912, for a copy of all letters telegrams, complaints or other papers or documents in the possession of the Government or any department thereof, relating to the dismissal of James Webber. lightkeeper, Tor Bay Point, N.S. Presented 20th January, 1913.—*Mr. Sinclair.*
Not printed.

61*ooo*. Return to an Order of the House of the 1st April, 1912, for a copy of all documents letters, inquiries, reports, evidence, &c., relating to the dismissal or the resignation of Baptiste Desjardins as lighthouse keeper at Kamouraska. Presented 20th January, 1913.—*Mr. Lapointe (Kamouraska)*.. .. ..*Not printed.*

61*ppp*. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, letters, telegrams and other documents relating to the dismissal of Angus Smith, pilot on the steamer *Earl Grey*, and also of all the evidence taken at the latest investigation held in regard to the said complaints, and of the report of the investigation with regard to the same. Presented 20th January, 1913—*Mr. Macdonald.*
Not printed.

61*qqq*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Michael J. Sampson, lightkeeper at Lower L'Ardoise, Richmond County, N.S. Presented 20th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*rrr*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of William Hackett, harbour commissioner at North Sydney, Nova Scotia, in the riding

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of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin in regard to same, and a detailed statement of the expenses of such investigation. Presented 20th January, 1913.—*Mr. McKenzie.*

Not printed.

61*sss*. Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence and other documents in the possession of the Department of Marine and Fisheries relating to the dismissal of Hormidas Lacasse, as wharfinger on the government wharf at Wendover, County of Prescott, Ontario, and the appointment of his successor. Presented 20th January, 1913.—*Mr. Proulx*.. .. ..*Not printed.*

61*ttt*. Return to an Order of the House of the 9th December, 1912, for a copy of all documents, papers, evidence and correspondence, relating to the dismissal of Geoffrey Gorman, coxswain of the lifeboat station at Herring Cove, Halifax County, N.S. Presented 20th January, 1913.—*Mr. Maclean (Halifax)*.. .. .. *Not printed.*

61*uuu*. Return to an Order of the House of the 10th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Captain George Wetmore, harbour master at Yarmouth, Yarmouth County, N.S., and the same information regarding the appointment of Captain Wetmore's successor, and of all evidence taken and report of investigation held by Charles Lane in regard to the same, also a detailed statement of expenses of such investigation. Presented 20th January, 1913.—*Mr. Law*.. .. ..*Not printed.*

61*vvv*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Stanley Henlow, lightkeeper at Liscomb, Guysborough County, N.S., and of evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 20th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*www*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of H. C. V. LeVatte, fishery officer at Louisburg, Cape Breton South, N.S., and of the evidence taken and reports of investigations held by H. P. Duchemin, in regard to the same. Presented 20th January, 1913.—*Mr. Carroll*.. .. ..*Not printed.*

61*xxx*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Elias M. Boudrot, keeper of storm signal at Petit de Grat, Richmond County, N.S., and of the evidence taken and report of investigation held by H. P. Duchemin in regard to the same and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 20th January, 1913.—*Mr Kyte*.. .. ..*Not printed.*

61*yyy*. Return to an Order of the House of the 10th December, 1912, for a return of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of A. B. Cox, Superintendent of Reduction Works at Canso, Guysborough County, N.S., and of all evidence taken and report of investigation held by H. P Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 20th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*zzz*. Return to an Order of the House of the 9th December, 1912, for a copy of all complaints and charges made against Jeffrey Crespo, sub-collector of Customs at Harbour au Bouche, Antigonish County, Nova Scotia, and of all letters, telegrams, correspondence and reports relating in any way to his dismissal and the appointment of a successor. Presented 20th January, 1913.—*Mr. Chisholm (Antigonish)*.

Not printed.

CONTENTS OF VOLUME 27—*Continued.*

61*aaaa*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, papers, charges and correspondence between the Department of Customs and all other persons regarding the dismissal from office of Thomas Cameron, preventive officer at Andover, N.B., and also of all evidence and reports thereon with reference to the dismissal of the said officer. Presented 20th January, 1913.—*Mr. Michaud.*
Not printed.

61*bbbb*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of L. W. Pye, customs officer at Liscomb, Guysborough County, N.S., and of all evidence taken and reports of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 20th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*cccc*. Return to an Order of the House of the 9th December, 1912, for a copy of all complaints, accusations, inquiries, reports, correspondence, and of all documents relating to the dismissal of Lucien O. Thisdale, a customs employee at Valleyfield, Quebec, and the appointment of his successor. Presented 20th January, 1913.—*Mr. Papineau.*
Not printed.

61*dddd*. Return to an Order of the House of the 11th December, 1912, for a copy of all letters, telegrams, correspondence, reports, and other documents relating to the dismissal of Alexander Macdonald of Doctor's Brook, Antigonish County, as sub-collector of customs. Presented 20th January, 1913.—*Mr. Chisholm (Antigonish).*
Not printed.

61*eeee*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Henry Cann, customs official and preventive officer at North Sydney, Nova Scotia, in the riding of North Cape Breton and Victoria. Presented 20th January, 1913.—*Mr. McKenzie*.. .. ..*Not printed*

61*ffff*. Return to an Order of the House of the 10th December, 1912, for a copy of all documents concerning the dismissal of Charles Mennier, customs preventive officer at Marieville, Quebec. Presented 20th January, 1913.—*Mr. Lemieux*.. .. ..*Not printed.*

61*gggg*. Return to an Order of the House of the 5th December, 1912, for a copy of all charges, correspondence, letters, telegrams, instructions, minutes of evidence taken and had on any inquiry investigation had, held or taken, and of all other papers and documents relating to the dismissal of George H. Cochrane, Collector of Customs at the Port of Moncton, New Brunswick; together with a copy of all letters and other correspondence between the Honourable Minister of Customs, and the member representing the County of Westmorland, New Brunswick, in this House, and of all letters, papers, telegrams, recommendations, appointments, or other papers and documents relating to the appointment of a collector of customs to succeed the said George H. Cochrane. Presented 20th January, 1913.—*Mr Emmerson*.. .. ..*Not printed.*

61*hhhh*. Return to an Order of the House of the 22nd January, 1912, for a copy of all correspondence, documents, recommendations and reports respecting the dismissal of C Michaud, postmaster at St. Germain, Kamouraska, and the appointment of his successor. Presented 20th January, 1913.—*Mr. Lapointe (Kamouraska)*.. ..*Not printed.*

61*iiii*. Return to an Order of the House of the 25th March, 1912, for a copy of all letters, telegrams and other documents, and of all complaints or accusations relating in any manner to the dismissal of Mr. Emile Archambault, letter carrier of Montreal, and a copy of the inquiry, and of the report of the inquiry held. Presented 20th January, 1913.—*Mr. Seguin*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*jjjj*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Norman Morrison, postmaster at Ferguson's Lake, Richmond County, N.S. Presented 21st January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*kkkk*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of D. J. McKillop, postmaster at McKillop, Richmond County, N.S. Presented 21st January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*llll*. Return to an Order of the House of the 22nd January, 1912, for a copy of all correspondence, papers and reports in connection with the investigation recently held at the Ste. Agathe post office, County of Terrebonne. Presented 21st January, 1913.—*Mr. Lemieux*.. .. ..*Not printed.*

61*mmmm*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Bertie Boudrot, lightkeeper at Poulamon, Richmond County, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin in regard to the same, and a detailed statement of the expenses of such investigation, and a copy of all papers relating to the appointment of his successor. Presented 22nd January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*nnnn*. Return to an Order of the House of the 1st April, 1912, for a copy of all letters, telegrams and other documents and of all complaints, accusations and requests for inquiry, relating in any manner to the lighthouse keepers of Repentigny, P.Q., Messrs. Leon Rivest, J. B. Lachapelle and Louis Dubois, since 21st September last; also a copy of the inquiry and the report of the inquiry held in the matter. Presented 22nd January, 1913.—*Mr. Seguin*.. .. ..*Not printed.*

61*oooo*. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, telegrams, letters, &c., relating to the dismissal of L. P. Carignan, forest ranger in the constituency of Champlain, Quebec. Presented 24th January, 1913.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

61*pppp*. Return to an Order of the House of the 5th December, 1912, for a copy of all correspondence, complaints, petitions, memoranda, notes of evidence, letters, reports of investigations and other documents in the possession of the Department of Customs, relating to the dismissal of James S. Harvey, preventive officer, New Richmond, Quebec; W. L. Kempffer, preventive officer at Paspebiac, Quebec; J. Herbert Sweetman, preventive officer at Port Daniel, Quebec; J. B. Le Blanc, preventive officer, at Carleton, Quebec; J. Nadeau, preventive officer, Nouvelle, Quebec, as well as a copy of all recommendations made regarding the appointment of their various successors and the names, salaries, duties and residences, with a copy of their instructions. Presented 24th January, 1913.—*Mr. Marcil*.. .. ..*Not printed.*

61*qqqq*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of William Marsh, preventive officer at Little Pond, Sydney Mines, in the riding of North Cape Breton and Victoria. Presented 24th January, 1913.—*Mr. McKenzie.* *Not printed.*

61*rrrr*. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, letters, telegrams, and petitions, for and against the dismissal of Duncan McDonald, preventive officer of customs at Athelstan, County of Huntingdon; also a copy of the report of investigation and evidence submitted to investigating commissioner. Presented 24th January, 1913.—*Mr. Robb*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*ssss*. Return to an Address to His Royal Highness the Governor General of the 11th December, 1912, for a copy of all papers, documents, orders in council, telegrams, letters, &c., relating to the dismissal from office of Lemuel Bent, late Collector of Customs at Oxford, N.S. Presented 24th January 1913.—*Mr. Maclean (Halifax).* *Not printed.*

61*tttt*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Pascal Poirier, Collector of Customs at Descouse, Richmond County, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin in regard to the same and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 24th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*uuuu*. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, letters, telegrams, reports and other documents concerning the dismissal of Donald J. Hachey, Collector of Customs at Bathurst, County of Gloucester, and the appointment of his successor. Presented 24th January, 1913.—*Mr. Turgeon.* *Not printed.*

61*vvvv*. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all correspondence, orders in council, and all other papers or documents in any way relating to the dismissal of John Maher, from the service of the Customs Department at Montreal. Presented 24th January, 1913.—*Mr. Murphy*.. .. ..*Not printed.*

61*wwww*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Peter Fougère, preventive and customs officer at Petit de Grat, Richmond county, N.S., and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same, and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 24th January, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61*xxxx*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of James Grantmyre, preventive officer at Little Bras D'or, N.S., in the riding of North Cape Breton and Victoria. Presented 24th January, 1913.—*Mr. McKenzie.* *Not printed.*

61*yyyy*. Return to an Order of the House of the 15th January, 1913, for a return showing all the employees on the Soulanges Canal who have been dismissed from their duties since the 21st September, 1911, by whom each of these employees has been replaced, and for what causes were they dismissed. Presented 27th January,1913.—*Mr. Boyer*.. .. ..*Not printed.*

61*zzzz*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Andrew Melville, locktender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. Proulx*.. .. ..*Not printed.*

61*aaaaa*. Return to an Order of the House of 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of George Short, canal bridgetender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. Guthrie*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*bbbbb*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of N. Broderick, locktender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. McMillan*.. .. ..*Not printed.*

61*ccccc*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Thomas McLatchie, locktender at Cardinal, Ontario. Presented 27th January, 1913. *Mr. Graham*.. .. ..*Not printed.*

61*ddddd*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Elgin McLaughlin, locktender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. Emmerson*.. .. ..*Not printed.*

61*eeeee*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Robert Robertson, locktender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. Lemieux*.. .. ..*Not printed.*

61*fffff*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of William L. Gladstone, locktender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. Pugsley*.. .. ..*Not printed.*

61*ggggg*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Byron VanCamp, locktender at Cardinal, Ontario. Presented 7th January, 1913.—*Mr. Murphy*.. .. ..*Not printed.*

61*hhhhh*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Samuel English, canal bridge tender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. Carvell*.. .. ..*Not printed.*

61*iiiii*. Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Edward F. Moran, locktender at Cardinal, Ontario. Presented 27th January, 1913.—*Mr. Oliver*.. .. ..*Not printed.*

67*jjjjj*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters correspondence, documents and reports relating to the dismissal of William R. Fougere, of Frankville, Antigonish County, N.S., a sectionman on the Intercolonial railway, and for a statement in detail of the expenses connected with the investigations of the charges against him. Presented 27th January, 1913.—*Mr. Chisholm (Antigonish)* *Not printed.*

61*kkkkk*. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, correspondence, documents and reports relating to the dismissal of John Melanson, of Afton, Antigonish County, N.S., a sectionman on the Intercolonial railway, and for a statement in detail of the expenses connected with the investigation of the charges against him. Presented 27th January, 1913.—*Mr. Chisholm (Antigonish)*. *Not printed.*

61*lllll*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Ronald D. McDonald, fishery overseer, at Broad Cove, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 27th January, 1913.—*Mr. Chisholm (Inverness)*. *Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*mmmmm*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John McLean, fishery officer at Gabarouse, Cape Breton South, N.S., and of evidence taken and reports of investigations held by H. P. Duchemin, in regard to the same. Presented 27th January, 1913.—*Mr. Carroll*.. .. ..*Not printed.*

61*nnnnn*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of A. R. Forbes, fishery overseer at North Sydney, Nova Scotia in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 27th January, 1913.—*Mr. McKenzie.* *Not printed.*

61*ooooo*. Return to an Order of the House of the 15th January, 1913, for a copy of all correspondence, letters, telegrams, complaints, petitions, and other documents concerning the dismissal of Sebastien Savoie, superintendent of the lobster hatchery at Shippigan, Gloucester County, N.B., and the appointment of his successor. Presented 27th January, 1913.—*Mr. Turgeon*.. .. ..*Not printed.*

61*ppppp*. Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of D. S. Hendsbee, weigher, reduction works, Canso, Guysborough County, N.S., and of all evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 27th January, 1913.—*Mr. Sinclair*.. .. ..*Not printed.*

61*qqqqq*. Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of M. Muce, lightkeeper at Cheticamp Island, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 29th January, 1913.—*Mr. Chisholm (Inverness)*.. .. .. ..*Not printed.*

61*rrrrr*. Return to an Order of the House of the 15th January, 1913, for a copy of all papers, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Dr. J. D. R. Williams, collector of canal tolls at Cardinal, Ontario, and of the appointment of his successor. Presented 30th January, 1913.—*Mr. McMillan*.. .. ..*Not printed.*

61*sssss*. Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of John W. Bohan, preventive officer at Bath, Carleton County, N.B. Presented 3rd February, 1913.—*Mr. Carvell*.. .. ..*Not printed.*

61*ttttt*. Return to an Order of the House of the 15th January, 1913, for a copy of all papers, documents, correspondence, &c., relating to the dismissal of J. V. Smith, sub-collector of customs at Wood's Harbour, Shelburne County, N.S. Presented 3rd February, 1913. —*Mr. Law*.. .. ..*Not printed.*

61*uuuuu*. Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of John Y. Fleming, customs officer at Debec, Carleton County, N.B. Presented 3rd February, 1913.—*Mr. Carvell*.. .. ..*Not printed.*

61*vvvvv*. Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of Matthias Meagher, preventive officer at Debec, Carleton County, N.B. Presented 3rd February, 1913.—*Mr. Carvell*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61*wwwww*. Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence, letters, telegrams, complaints, and of the evidence given at investigation, if one was held, relating to the dismissal of Mr. A. J. Gosselin, acting preventive officer of customs at St. Albans, Vermont, through the port of St. Armand, County of Missisquoi. Presented 4th February, 1913.—*Mr. Kay*.. .. ..*Not printed.*

61*xxxxx*. Return to an Order of the House of the 4th December, 1912, for a copy of all papers, letters, telegrams, and petitions for and against the dismissal of James W. Bannon, preventive officer of customs at St. Agnes de Dundee, County of Huntingdon also a copy of the report of investigation and evidence, if any, submitted to investigating commissioner. Presented 4th February, 1913.—*Mr. Robb*.. .. ..*Not printed.*

61*yyyyy*. Return to an Order of the House of the 4th December, 1912, for a return showing the number of postmasters that have been dismissed in the County of Picton since 1st October, 1911; the names of the postmasters who have been appointed to succeed them; the causes of the dismissals and all complaints and correspondence with respect to same, and of all reports of investigation where investigations have been held. Presented 4th February, 1913.—*Mr. Macdonald*.. .. ..*Not printed.*

61*zzzzz*. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all correspondence, orders in council, and all other papers or documents in any way relating to the dismissal of James Murphy from the position of postmaster at Tweed, Ontario. Presented 4th February, 1913.—*Mr. Murphy*.. .. ..*Not printed.*

61 (*6a*). Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of H. B. Easton, immigration agent at Prescott, Ontario. Presented 4th February, 1913.—*Mr. Murphy*.. .. ..*Not printed.*

61 (*6b*). Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of B. Hughes, immigration agent at Prescott, Ontario. Presented 4th February, 1913.—*Mr. Oliver*.. .. ..*Not printed.*

61 (*6c*). Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of George Walsh, immigration agent at Prescott, Ontario. Presented 4th February, 1913.—*Mr. Oliver*.. .. ..*Not printed.*

61 (*6d*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of Newton S. Dow, immigration agent at McAdam Junction, York County, N.B. Presented 4th February, 1913.—*Mr. Carvell*.. .. ..*Not printed.*

61 (*6e*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of Oliver Hemphill, immigration agent at Debec, Carleton County, N.B. Presented 4th February, 1913.—*Mr. Carvell*.. .. ..*Not printed.*

61 (*6f*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Martin Johnston, preventive officer at Rea Islands, Richmond County, N.S Presented 6th February, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (6*g*). Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, letters, telegrams and other documents respecting the dismissal of J. E. Phaneuf, postmaster of St. Hugues, County of Bagot. Presented 6th February, 1913.—*Mr. Marcile*.. .. ..*Not printed*

61 (6*h*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Murdock McCutcheon, postmaster at Sonora, Guysborough County, N.S., and of all evidence taken and report of investigation held by Mr. H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 6th February, 1913.—*Mr. Sinclair*.. .. ..*Not printed*

61 (6*i*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Duncan Gillies, fishery overseer at Baddeck, C.B., in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 7th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (6*j*). Return to an Order of the House of the 9th December, 1912, for a copy of all complaints, accusations, correspondence, petitions and of all documents and reports respecting the dismissal of Antonio Leduc, postmaster of St. Timothée, in the County of Beauharnois and the appointment of his successor. Presented 7th February, 1913.—*Mr. Papineau*.. .. ..*Not printed.*

61 (6*k*). Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of the recommendation to council, the order in council, all correspondence with the government or any member thereof, and of all letters, documents and papers in any way connected with the dismissal of Charles Arthur Bowman from the engineering branch of the Department of Railways and Canals.—*Mr. Clark (Red Deer)*.. .. ..*Not printed.*

61 (6*l*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, evidence, reports, letters, correspondence, &c., relating to the dismissal of Elnathan D. Smith, fishery overseer, Shag Harbour, Shelburne County, N.S. Presented 11th February, 1913.—*Mr. Law*.. .. ..*Not printed.*

61 (6*m*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Donald McAulay, lightkeeper, Plaister, Baddeck Bay, C.B., riding of North Cape Breton and Victoria, and of the evidence taken and reports of investigation held by H. P. Duchemin in regard to the same, and a detailed statement of the expenses of such investigation. Presented 11th February, 1913.—*Mr. McKenzie.* *Not printed.*

61 (6*n*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, letters, correspondence, &c., relating to the dismissal of John Fredericks, lightkeeper at East Jordan, Shelburne County, N.S. Presented 11th February, 1913.—*Mr. Law*.. .. ..*Not printed.*

61 (6*o*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, letters, correspondence, &c., relating to the dismissal of John Fredericks, wharfinger at East Jordan, Shelburne County, N.S. Presented 11th February, 1913.—*Mr. Law*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (6*p*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, letters, correspondence, &c., relating to the dismissal of John C Morrison, harbour master at Shelburne, N.S. Presented 11th February, 1913.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

61 (6*q*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dis missal of Captain Roderick McDonald, tide waiter, at Big Bras D'Or, riding of North Cape Breton and Victoria, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin in régard to the same, and a detailed statement of the expenses of such investigation. Presented 11th February, 1913.—*Mr. McKenzie.* *Not printed.*

61 (6*r*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dis missal of James Maloney, customs officer at Dingwall, riding of North Cape Breton and Victoria, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin in regard to the same, and a detailed statement of the expenses of such investigation. Presented 11th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (6*s*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Hugh D. McEachern, customs officer at north side East Bay, Cape Breton. in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 11th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (6*t*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, evidence, reports and correspondence relating to the dismissal of Thos. H. Hall, sub-collector of customs at Sheet Harbour, N.S. Presented 11th February, 1913.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

61 (6*u*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of J. A. McNeil, customs officer at Grand Narrows, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 11th February, 1913.—*Mr. McKenzie.* *Not printed.*

61 (6*v*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of George Burchell, custom house officer at Sydney Mines, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 11th February, 1913.—*Mr. McKenzie.* *Not printed.*

61 (6*w*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of W. H. Saver, collector of customs at Cardinal, Ont., and the appointment of his successor. Presented 11th February, 1913.—*Mr. McMillan.* *Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (6*x*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, telegrams and other documents relative to the dismissal of Captain George Livingstone, custom officer at Big Bras D'Or, Cape Breton, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same and a detailed statement of the expenses of such investigation. Presented 11th February, 1913.—*Mr. McKenzie.* *Not printed.*

61 (*y*). Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, reports and other documents and papers relating to the dismissal of H. Lacasse, as postmaster at Wendover, County of Prescott, Ontario, and the appointment of his successor. Presented 13th February, 1913.—*Mr. Proulx.. ..Not printed.*

61 (6*z*). Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence and other papers connected with the removal of Harry A. Drigg, from the position of postmaster at Grassey Lake, Alberta. Presented 13th February, 1913.—*Mr. Buchanan.. .. ..Not printed*

61 (7*a*). Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all papers, memoranda, orders in council, and correspondence relating to the dismissal of A. H. Stratton, late postmaster at Peterborough, Ont. Presented 17th February, 1913.—*Mr. Maclean (Halifax).* *Not printed*

61 (7*b*). Return to an Order of the House of the 10th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Henry Burrell, postmaster, Yarmouth North, Yarmouth County, N.S., and the same information regarding the appointment of Henry Burrell's successor, and of the evidence taken and report of investigation held by Charles Lane in regard to the same, also a detailed statement of expenses of such investigation. Presented 18th February, 1913.—*Mr. Law.. .. ..Not printed.*

61 (7*c*). Return to an Order of the House of the 4th December, 1912, for a return showing all the postmasters dismissed by the present government in the County of Gloucester. the names of such persons, the reasons for their dismissal, nature of the charges made against them; also a copy of all correspondence connected with it, and reports of investigations in cases where such investigations were instituted. Presented 18th February, 1913.—*Mr. Turgeon.. .. ..Not printed.*

61 (7*d*). Return to an Order of the House of the 10th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Dr. Charles A. Webster, port physician at Yarmouth, County of Yarmouth N.S., and the same information regarding the appointment of Dr. Webster's successor. Presented 18th February, 1913.—*Mr. Law.. .. ..Not printed*

61 (7*e*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, papers, charges and correspondence between the Department of Marine and Fisheries and all other persons, regarding the dismissal of Jos. Lord, keeper of lighthouses at Pointe à la Mule on the River Richelieu, Parish of St. Blaise, County of Saint Jean and Iberville and of all reports thereon with reference to the dismissal of the said Mr. Lord. Presented 19th February, 1913.—*Mr. Demers.. .. .. ..Not printed.*

61 (7*f*). Return to an Order of the House of the 15th January, 1913, for a copy of all correspondence, letters, telegrams and petitions concerning the dismissal of Henri Friolet, wharfinger at Caraquet, and Richard Southwood, wharfinger and agent of the Storm Signal Service at Bathurst, Gloucester County, N.B., and the appointment of their successors. Presented 19th February, 1913.—*Mr. Turgeon.. .. .. ..Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (*7g*). Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, letters, telegrams, reports and other documents, respecting the removal of Joseph L. Robichaud, lighthouse keeper at Miscou, County of Gloucester, and the appointment of his successor; also of all correspondence respecting the engagement of the engineer of fog alarm system attached to that station, and the certificates required by the Minister of Marine, showing the competence of that engineer; with the names of the new keeper and of the said engineer and their ages. Presented 19th February, 1913.—*Mr. Turgeon*.. .. ..*Not printed*

61 (*7h*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Captain Pope as lighthouse keeper at Scatarie, Cape Breton South, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same. Presented 19th February, 1913.—*Mr. Carroll*.. .. ..*Not printed*

61 (*7i*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Captain W. W. Lewis, as shipping master at Louisburg, Cape Breton South, Nova Scotia, and of evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same. Presented 19th February, 1913.—*Mr. Carroll.*
Not printed.

61 (*7j*). Return to an Order of the House of the 4th December, 1912, for a return showing the names of postmasters that have been dismissed in the County of Bonaventure since 1st October, 1911; the names of the postmasters who have been appointed to succeed them; the causes of the dismissals and a copy of all complaints and correspondence with respect to same, and of all reports of investigations where such have been held, with the reasons given for not holding any such investigation, when not held. Presented 19th February, 1913.—*Mr. Marcil*.. .. ..*Not printed*

61 (*7k*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of George Hines, lighthouse keeper at South Ingonish, riding of North Cape Breton and Victoria, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same, and a detailed statement of the expenses of such investigation. Presented 20th February, 1913.—*Mr. McKenzie*..*Not printed.*

61 (*7l*). Return to an Order of the House of the 15th January, 1913, for a return showing a list of the lighthouse keepers removed by the present government in the County of Two Mountains, the names of such persons, the reasons for their dismissal, the nature of the complaints made against them; also a copy of all correspondence and petitions relating thereto, and reports of inquiries in the cases, where such have been held; and also the names of their successors. Presented 20th February, 1913.—*Mr. Ethier*.. .. ..*Not printed.*

61 (*7m*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Archibald McDonald, preventive officer at Mull River, Inverness County, Nova Scotia. Presented 20th February, 1913.—*Mr. Chisholm (Inverness)*..*Not printed.*

61 (*7n*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, correspondence on file referring to the dismissal of Donald Chisholm, of Tracadie, in the County of Antigonish, as preventive officer. Presented 20th February, 1913.—*Mr. Chisholm (Antigonish)*... .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (*7o*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, telegrams, reports and other documents relative to the dismissal of Edward C. Humphreys, of Trenton, N.S., as an officer of the Inland Revenue Department and to the appointment of his successor. Presented 20th February, 1913.—*Mr. Macdonald.* *Not printed.*

61 (*7p*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of H. J. Fixott, port physician at Arichat, Richmond County, N.S. Presented 21st February, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61 (*7q*). Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, letters, telegrams and other documents relating to the dismissal of D. Morin as postmaster of St. Pie de Bagot, County of Bagot. Presented 21st February, 1913.—*Mr. Marcil (Bagot)*.. .. ..*Not printed.*

61 (*7r*). Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, investigations and papers generally concerning the dismissal of Ernest Paquin, postmaster of St. Cecile de Levrard, County of Nicolet. Presented 21st February, 1913.—*Mr. Lemieux*.. .. ..*Not printed*

61 (*7s*). Return to an Address to His Royal Highness the Governor General of the 17th February, 1913, for a copy of all complaints and charges made against John R. McDonald, Indian agent at Heatherton, Antigonish County, of the recommendations to council and of the order in council made thereon, and of all letters, correspondence, and documents connected in any way with his dismissal. Presented 25th February, 1913.—*Mr. Chisholm (Antigonish)*... .. ..*Not printed*

61 (*7t*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Joseph Day, customs officer at Little Bras D'Or, C.B., in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 25th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (*7u*). Return to an Address to His Royal Highness the Governor General of the 29th January, 1913, for a copy of all complaints against Duncan McLeod, appraiser of customs at Sherbrooke, Province of Quebec, of all information obtained as to his conduct through seizures of goods by special officers of customs and by investigation; of all reports of investigation; of the order in council dismissing said Duncan McLeod; and of all correspondence between him and the Department of Customs. Presented 25th February, 1913.—*Mr. McCrae*.. .. ..*Not printed.*

61 (*7v*). Return to an Order of the House of the 17th February, 1913, for a copy of all papers, letters, telegrams, evidence, &c., given at the investigation or investigations and of reports of such investigations, relating to the dismissal of Edouard D Chiasson, sub-collector of customs at Lamèque, Gloucester County, and the appointment of his successor. Presented 25th February, 1913.—*Mr. Turgeon*.. ..*Not printed.*

61 (*7w*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of George F. Briggs, customs officer at McAdam Junction, York County, N.B. Presented 25th February, 1913.—*Mr. Carvell*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (*7x*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of William A. Duan, lightkeeper at Green Island, Richmond County, Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 25th February, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61 (*7y*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, charges, correspondence, letters, telegrams and other documents relating to the dismissal of Thomas Cameron, preventive officer at Andover, N.B., and of the evidence taken and reports of investigation held by Mr. E. T. C. Knowles, in connection with the same. Presented 26th February, 1913.—*Mr. Michaud*.. .. ..*Not printed.*

61 (*7z*). Return to an Order of the House of the 29th January, 1913, for a copy of all complaints and charges made against Joseph McDonald, late of the customs office at Sydney, Cape Breton, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal and the appointment of his successor. Presented 26th February, 1913.—*Mr. Carroll*.. .. ..*Not printed*

61 (*8a*). Return to an Order of the House of the 29th January, 1913, for a copy of all complaints and charges made against Angus McGillivray, late of customs office at Glace Bay, Cape Breton South, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal and the appointment of his successor. Presented 26th February, 1913.—*Mr. Carroll*.. .. ..*Not printed.*

61 (*8b*). Return to an Order of the House of the 3rd February, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Roderick Bain, boatman at New Campbellton, riding of North Cape Breton and Victoria, N.S., and of the evidence taken and reports of the investigation held by H. P. Duchemin, in regard to same, with a detailed statement of expenses of such investigation. Presented 26th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (*8c*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of W. A. Scott, lockmaster at Cardinal, Ontario, and of the appointment of his successor. Presented 27th February, 1913.—*Mr. McMillan.* *Not printed.*

61 (*8d*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Bert Johnson, lockman at Nicholson, Ontario. Presented 27th February, 1913.—*Mr. Turgeon*.. .. ..*Not printed.*

61 (*8e*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of John Merrifield, lockmaster at Burritts Rapids, Ont., and the appointment of his successor. Presented 27th February, 1913.—*Mr. Chisholm.* *Not printed.*

61 (*8f*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Neil Cummings, lockmaster at Cardinal, Ontario, and of the appointment of his successor. Presented 27th February, 1913.—*Mr. McMillan*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (8*g*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, papers, charges and correspondence between the Department of Railways and Canals and all other persons, regarding the dismissal of Mr. François Chagnon, lockkeeper at Saint Jean, County of Saint Jean and Iberville, and of all reports thereon with reference to the dismissal of the said Mr. Chagnon. Presented 27th February, 1913.—*Mr. Demers*.. .. ..*Not printed.*

61 (8*h*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Neil McNeil, bridge tender, Intercolonial railway, at Grand Narrows in the riding of North Cape Breton and Victoria. Presented 27th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (8*i*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Archibald McKenzie, sectionman, Intercolonial railway, at Grand Narrows, in the riding of North Cape Breton and Victoria. Presented 27th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (8*j*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of John Fraser, bridge tender, Intercolonial railway, at Grand Narrows, in the riding of North Cape Breton and Victoria. Presented 27th February, 1913.—*Mr. McKenzie*.. .. ..*Not printed.*

61 (8*k*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Demetrius Crozier, lockman at Merrickville, Ontario. Presented 27th February, 1913.—*Mr. Proulx*.. .. ..*Not printed.*

61 (8*l*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Patrick Cussuk, lockman at Merrickville, Ontario Presented 27th February, 1913.—*Mr. Michaud*.. .. ..*Not printed.*

61 (8*m*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Joseph H. Webster, lockman at Nicholson, Ontario. Presented 27th February, 1913.—*Mr. Pacaud*.. .. ..*Not printed.*

61 (8*n*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Cyrus O'Neil, lockman at Nicholson, Ontario. Presented 27th February, 1913.—*Mr. Kyte*... .. ..*Not printed.*

61 (8*o*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Michael Laughtin, bridgeman at Burritts Rapids, Ontario. Presented 27th February, 1913.—*Mr. Papineau*.. .. ..*Not printed.*

61 (8*p*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of John McKay, bridgeman at Becketts, Ontario. Presented 27th February, 1913.—*Mr. Lanctot*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (8*q*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Edward Proctor, lockman at Burritts Rapids, Ont. Presented 27th February, 1913.—*Mr. Neely*.. .. ..*Not printed.*

61 (8*r*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of William Morrison, lockman at Burritts Rapids, Ont. Presented 27th February, 1913.—*Mr. Cash*.. .. ..*Not printed.*

61 (8*s*). Return to an Order of the House of the 15th January, 1913, for a copy of all letters, documents, telegrams, reports, correspondence and recommendations in any way relating to the dismissal of Adam Henderson, bridgemaster at Cardinal, Ontario, and of the appointment of his successor. Presented 27th February, 1913.—*Mr. Murphy.* *Not printed.*

61 (8*t*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of James Feehan, fishery guardian or warden at Tracadie Harbour and Savage Harbour, Prince Edward Island. Presented 27th February, 1913.—*Mr. Hughes (Kings, P.E.I.)*.. .. ..*Not printed.*

61 (8*u*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of John C. McNeil, lighthouse keeper at Grand Narrows, in the riding of North Cape Breton and Victoria. Presented 27th February, 1913.—*Mr. McKenzie.* *Not printed.*

61 (8*v*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of A. A. Chisholm, fishery overseer at Margaree Forks, Inverness County, Nova Scotia. Presented 28th February, 1913.—*Mr. Chisholm (Inverness)*.. ..*Not printed.*

61 (8*w*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Charles E. Aucoin, collector of customs at Cheticamp, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by Mr. H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish).* *Not printed.*

61 (8*x*). Return to an Order of the House of the 17th February, 1913, for a copy of all complaints and charges made against Charles L. Gass, late postmaster at Bayfield, Antigonish County, of the evidence taken, if any, before Commissioner Duchemin, and of his report thereon and of all letters, telegrams and documents of every kind relating to his dismissal and the appointment of his successor. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61 (8*y*). Return to an Order of the House of the 17th February, 1913, for a copy of all letters and correspondence exchanged in reference to the dismissal of Cyprien Martin, of St. Basile, County of Madawaska, N.B., between the Department of Customs and the said Mr. Martin as preventive officer. Presented 28th February, 1913.—*Mr. Michaud*.. .. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (8c). Return to an Order of the House of the 9th December, 1912, for a copy of all complaints and charges made against Angus A. Boyd, postmaster at Boyd's post office, Antigonish County, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal, and the appointment of a successor. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61 (9a). Return to an Order of the House of the 9th December, 1912, for a copy of all complaints and charges made against John B. Macdonald, postmaster at Glasburn, Antigonish County, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal, and the appointment of a successor. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed*

61 (9b). Return to an Order of the House of the 9th December, 1912, for a copy of all complaints and charges made against Alex. G. Chisholm, postmaster at Ohio, Antigonish County, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal, and the appointment of a successor. Presented 28th February, 1913.—*Mr. Chisholm (Inverness)*.. .. ..*Not printed*

61 (9c). Return to an Order of the House of the 9th December, 1912, for a copy of all complaints and charges made against John J. McLean, postmaster at Cross Roads, Ohio, Antigonish County, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal and the appointment of a successor. Presented 28th February, 1913.—*Mr. Chisholm (Inverness)*.. .. ..*Not printed*

61 (9d). Return to an Order of the House of the 9th December, 1912, for a copy of all complaints and charges made against Dougald McDonald, postmaster at Doctors Brook, Antigonish County, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to his dismissal, and the appointment of his successor. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61 (9e). Return to an Order of the House of the 9th December, 1912, for a copy of all complaints and charges made against Dan. A. McInnes, postmaster at Georgeville, Antigonish County, Nova Scotia, and of all letters, telegrams, and correspondence relating in any way to his dismissal, and the appointment of his successor. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61 (9f). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, letters, correspondence, telegrams and other documents relating to the dismissal of E. A. Asker, harbour master at Campbellton. Presented 3rd March, 1913.—*Mr. Reid (Restigouche)*.. .. ..*Not printed.*

61 (9g). Return to an Order of the House of the 10th February, 1913, for a copy of all papers, letters, documents and orders relative to the dismissal of Fred Shultz as caretaker of the armouries at Kentville, Nova Scotia, and of the appointment of William Shoop in his place and also for a statement of the stores in said armouries in the years 1910, 1911, 1912, respectively, and for a copy of all orders and regulations relative to the duties of such caretaker. Presented 3rd March, 1913.—*Mr. Macdonald. Not printed.*

61 (9h). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Dr. Freeman O'Neil, from the Marine Hospital at Louisburg, Cape Breton South, N.S., and of evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same. Presented 10th March, 1913.—*Mr. Carroll*..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (9*i*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Leon N. Poirier, wharfinger at Descouse, Richmond County, N.S. Presented 10th March, 1913.—*Mr. Kyte*.. .. ..*Not printed.*

61 (9*j*). Return to an Order of the House of the 10th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Norman L. Trefry, shipping master at Yarmouth, County of Yarmouth, N.S., and the same information regarding the appointment of Mr. Trefry's successor Presented 10th March, 1913.—*Mr. Law*.. .. ..*Not printed.*

61 (9*k*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, documents, correspondence, &c., relating to the dismissal of James Amereault, lighthouse keeper at New Edinburgh, Digby County, N.S. Presented 10th March, 1913.—*Mr. McLean (Halifax)*.. .. ..*Not printed*

61 (9*l*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, evidence, reports, letters, correspondence, &c., relating to the dismissal of H. B. Manley, a clerk in the Dominion Lands Office at Saskatoon. Presented 10th March, 1913.—*Mr. McCraney*.. .. ..*Not printed.*

61 (9*m*). Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence, letters, telegrams, papers and other documents in connection with the dismissal of John Spicer, senior assistant of the Moosejaw Land Agency. Presented 10th March, 1913.—*Mr. Knowles*.. .. ..*Not printed.*

61 (9*n*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, letters, telegrams and other documents respecting the dismissal of Robert Pragnall from the position of agent of the Dominion Land Office at Swift Current and the appointment of his successor. Presented 10th March, 1913.—*Mr. Knowles.* *Not printed.*

61 (9*o*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, evidence, reports, letters, correspondence, &c., relating to the dismissal of G. M. Ullyot, a clerk in the Dominion Lands Office at Saskatoon. Presented 10th March, 1913.—*Mr. McCraney*.. .. ..*Not printed*

61 (9*p*). Return to an Order of the House of the 9th December, 1912, for a return showing the detail and number of dismissals from public offices by the present government to this date in the riding of Saskatoon, with the names of the dismissed occupants, the reasons for their dismissals, the complaints against such officials, and all correspondence with respect to the same, and of all reports of investigations, in case where such were held. Presented 17th March, 1913.—*Mr. McCraney*.. .. ..*Not printed*

61 (9*q*). Return to an Order of the House of the 17th February, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports, affidavits and other documents in the Department of Inland Revenue, respecting the dismissal of J. N. Poirier, Collector of Excise at Victoriaville, County of Arthabaska, and the names of the witnesses interested, with a copy of the evidence and a statement of expenses of the said inquiry. Presented 17th March, 1913.—*Mr. Brouillard*.. .. ..*Not printed.*

61 (9*r*)..Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of John G. Morrison, fishery inspector at Englishtown, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 18th March, 1913.—*Mr. Kyte*.. .. ..*Not printed*

CONTENTS OF VOLUME 27—*Continued.*

61 (9*s*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Edward Landry, lightkeeper, Petite de Grat, Richmond County, N.S., and of all evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 18th March, 1913.—*Mr. Kyte*.....*Not printed.*

61 (9*t*). Return to an Order of the House of the 27th January, 1913, for a copy of all documents, petitions, letters, correspondence, inquiries and reports concerning the dismissal of Evariste Talbot, employed in the general freight office of the Intercolonial. Presented 18th March, 1913.—*Mr. Lapointe (Kamouraska)*.....*Not printed*

61 (9*u*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Department of Railways or any department of the government, relating to the dismissal of Philip H. Ryan, an employee of the Intercolonial railway at Mulgrave, N.S., and if there was an investigation, the names of all witnesses examined, a copy of the evidence, and a detailed statement of the expenses of such investigation. Presented 18th March, 1913.—*Mr. Sinclair*..*Not printed.*

61 (9*v*). Return to an Order of the House of the 3rd February, 1913, for a return showing how many postmasters and other post office employees were removed from office respectively, from the 1st of July, 1896, to the 1st of October, 1911, and the number in each province; and from the 10th of October, 1911, up to date, with the number in each province; also the number of post offices in operation in each province on the 1st July, 1896. Presented 26th March, 1913.—*Mr. Rainville*.....*Not printed.*

61 (9*w*). Return to an Address to His Royal Highness the Governor General of the 3rd February, 1913, for a copy of all orders in council, and of all letters, telegrams, complaints, petitions and of all other documents of any kind, in the possession of the government, or of any department or official thereof, in any way relating to or concerning the dismissal of Dr. Clarence T. Campbell, post office inspector at London, Ontario. Presented 26th March, 1913.—*Mr. Ross*.....*Not printed.*

61 (9*x*). Return to an Order of the House of the 9th December, 1912, for a return showing the number of postmasters that have been dismissed in the County of Missisquoi since 1st October, 1911, the names of the postmasters who have been appointed to succeed them, the cause of the dismissals and a copy of all complaints and correspondence with respect to the same, and of all reports of investigations where such have been held. Presented 26th March, 1913.—*Mr. Kay*.....*Not printed.*

61 (9*y*). Return to an Order of the House of the 27th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Post Office Department, regarding any change in any post office or postmastership in Bonaventure County, between 5th December, 1912, up to date. Presented 26th March, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

61 (9*z*). Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all papers, documents, correspondence, orders in council, &c., relative to the dismissal of S. A. Johnson, late postmaster at Petite Rivière, Lunenburg County, N.S. Presented 26th March, 1913.—*Mr. MacLean (Halifax).*
Not printed.

CONTENTS OF VOLUME 27—*Continued.*

61 (10*a*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Murdock McKenzie, postmaster at Millville Boulardarie, Nova Scotia, in the riding of North Cape Breton and Victoria. Presented 26th March, 1913.—*Mr. McKenzie* ....*Not printed.*

61 (10*b*). Return to an Order of the House of the 9th December, 1912, for a copy of all documents, correspondence and telegrams relating to the dismissal of James Stewart, postmaster at Middleton, Antigonish County, and the appointment of his successor. Presented 26th March, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed*

61 (10c). Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence, telegrams and reports relating to the dismissal of Lauchlin McNeil. postmaster at New France, County of Antigonish, and the appointment of his suc- Presented 26th March, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed.*

61 (10*d*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Frank Dunlop, postmaster at Groves Point, Nova Scotia, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expense of such investigation. Presented 26th March, 1913.—*Mr. McKenzie.*
Not printed.

61 (10*e*). Return to an Order of the House of the 10th December, 1912, for a copy of all letters, telegrams, complaints, petitions and other documents relating to the investigation of A. W. Salsman, postmaster at Middle Country Harbour, N.S., and to the appointment of his successor. Presented 26th March, 1913.—*Mr. Sinclair.*
Not printed.

61 (10*f*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Richard Conroy, postmaster at Cross Roads, County Harbour, Guysborough County, N.S., and of all evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 26th March, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (10*g*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Abner Carr, postmaster at St. Francis Harbour, Guysborough County, N.S., and of all evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of expenses of such investigation. Presented 26th March, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (10*h*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Parker Sangster, postmaster, Upper New Harbour, Guysborough County, NS., and of all evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 26th March, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (10*i*). Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all correspondence, orders in council and all other papers or documents in any way relating to the dismissal of Alexander Marion, from the position of postmaster at Rockland, Ontario. Presented 26th March, 1913.—*Mr. Murphy* ....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (10*j*). Return to an Order of the House of the 4th December, 1912, for a copy of the evidence taken and the report made by each commissioner appointed since 1st of November, 1911, to conduct an investigation into charges of offensive partizanship made against postmasters in the County of Russell. Presented 26th March, 1913.—*Mr. Murphy* .....*Not printed.*

61 (10*k*). Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, evidence, reports, findings and correspondence, relating to the dismissal of Mathew Boutilier, recently postmaster at Mushaboom, Halifax County, N.S. Presented 26th March, 1913.—*Mr. MacLean (Halifax)*.....*Not printed*

61 (10*l*). Return to an Order of the House of the 29th January, 1913, for a return showing the names of the postmasters in the County of Joliette, who have been dismissed from 1896 to September, 1911; their respective parishes; dates of their dismissals; the reasons alleged; whether an inquiry was made in each case; on whose recommendation in each case the dismissals were made; names of successors in each case, and on whose recommendation were they appointed. Presented 26th March, 1913.—*Mr. Guilbault.* *Not printed.*

61 (10*m*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, evidence, reports, letters, correspondence, &c., relating to the dismissal of T. Doane Crowell, postmaster at Shag Harbour, Shelburne County, N.S., and the appointment of his successor. Presented 26th March, 1913.—*Mr. Law.* *Not printed*

61 (10*n*). Return to an Order of the House of the 22nd January, 1913, for a return showing the postmasters who have been dismissed in the County of Vaudreuil, the dates of their appointment, the cause of their dismissal and by whom their dismissal was requested. Presented 26th March, 1913.—*Mr. Boyer*.....*Not printed.*

61 (10*o*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, documents, letters, correspondence, &c., relating to the dismissal of Mrs. Spinney, postmistress at Upper Port La Tour, Shelburne County, N.S. Presented 26th March, 1913.—*Mr. Law*.....*Not printed.*

61 (10*p*). Return to an Order of the House of the 29th January, 1913, for a return showing the number of postmasters dismissed in the County of Rimouski since 21st September, 1911, giving their names. Presented 26th March, 1913.—*Mr. Lapointe (Kamouraska)* .....*Not printed.*

61 (10*q*). Return to an Order of the House of the 4th December, 1912, for a return showing the detail and number of dismissals from public offices by the present government to this date in the riding of Wright, giving the names of the dismissed occupants, the reasons for their dismissal, the complaints against such officials, and a copy of all correspondence with respect to the same, with all reports of investigations where such were held. Presented 27th March, 1913.—*Mr. Devlin*.....*Not printed*

61 (10*r*). Return to an Order of the House of the 29th January, 9113, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John R. McLennan, janitor of the public building at Inverness Town, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by Mr. H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 28th March, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (10*s*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, and other documents relating to the dismissal of James Arbuckle, caretaker of the public buildings at Pictou, and the appointment of two successors in his stead Presented 28th March, 1913.—*Mr. Macdonald*.....*Not printed.*

61 (10*t*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Mary Dunlop, telegraph operator at Groves Point, Cape Breton County, Nova Scotia, in the riding of North Cape Breton and Victoria. Presented 28th March, 1913.—*Mr. McKenzie* .....*Not printed.*

61 (10*u*). Return to an Order of the House of the 4th December, 1912, for a return showing the foremen employed at the various public works in the County of Gloucester on the 21st of September, 1911, who have been dismissed since by the present administration, containing their names, reasons of dismissal, nature of the charges made against them, also a copy of all correspondence connected with the same and reports of inquiries, in cases where such inquiries have been instituted. Presented 28th March, 1913.—*Mr. Turgeon*..... .....*Not printed*

61 (10*v*). Return to an Order of the House of the 3rd February, 1913, for a copy of all letters, telegrams, papers and documents relative to the dismissal of Captain Lyons of the dredge *Northumberland*, and the appointment of his successor. Presented 28th March, 1913.—*Mr. Macdonald*..... .....*Not printed.*

61 (10*w*). Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all correspondence, orders in council and all other papers or documents in any way relating to the dismissal of James McCartin, from the position of inspector of the concrete work forming part of the contract for the construction of the The Plaza at the City of Ottawa Presented 28th March, 1913.—*Mr. Murphy* ....*Not printed.*

61 (10*x*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Robert C. Morrison, postmaster at St. Peters, Richmond County, N.S., and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation, together with a copy of all recommendations, letters, telegrams and other papers relating to the appointment of Mr. Morrison's successor. Presented 31st March, 1913.—*Mr. Kyte.* *Not printed*

61 (10*y*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Richard Dugas, storm signal attendant at Alder Point, Nova Scotia, in the riding of North Cape Breton and Victoria. Presented 4th April, 1913.—*Mr. McKenzie.* *Not printed.*

61 (10*z*). Return to an Order of the House of the 20th January, 1913, for a return showing the names of all officials of the Marine and Fisheries Department who have been dismissed or removed in the County of Pictou, the reasons of the same, the evidence taken at any investigation held in regard to them, and the reports of said investigations, the names of their successors, and a copy of all letters, charges, complaints and recommendations from any person or persons in regard to the said removals or dismissals, or in regard to the appointment of their successors. Presented 4th April 1913.—*Mr. Macdonald*..... .....*Not printed*

CONTENTS OF VOLUME 27—*Continued.*

61 (11*a*). Return to an Order of the House of the 3rd March, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of William L. Munro, lightkeeper at White Head, Guysborough County, N.S., and of all evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 4th April, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (11*b*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, telegrams, correspondence, reports and documents touching the dismissals of Alexander R. McAdam as fishery officer for the County of Antigonish, N.S., and the appointment of his successor. Presented 4th April, 1913.—*Mr. Chisholm (Antigonish).* *Not printed.*

61 (11*c*). Return to an Order of the House of the 19th February, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Marine and Fisheries Department, or any department of the government, relating to the dismissal of Stephen C. Richard, lightkeeper at Charlos Cove, N.S., and if there was an investigation, the names of all witnesses examined, a copy of the evidence, and a detailed statement of the expenses of such investigation. Presented 4th April, 1913—*Mr. Sinclair*.....*Not printed.*

61 (11*d*). Supplementary to an Order of the House of the 7th February, 1912, for a return showing for each department of the government the names, post office addresses, offices, employment, and salaries of all persons employed either in the inside or outside service thereof, and of such persons not in the Civil Service, employed by the government in any department, on the tenth day of October, 1911, who have been removed from office or employment by dismissal; specifying in each case the manner of and grounds of such dismissals and the length of notice given to the persons removed, and also indicating in each case whether an inquiry was or was not held prior to such dismissal. Presented 7th April, 1913.—*Mr. Kyte*.....*Not printed.*

61 (11*e*). Return to an Order of the House of the 7th December, 1912, for a return showing the public officers removed by the present government in the district of Lotbinière, with the names and duties of such persons, the reasons of their dismissal. the nature of the complaints made against them, also a copy of all correspondence relating thereto and reports of inquiries in the cases where such inquiries have been held. Presented 9th April, 1913.—*Mr. Fortier*.....*Not printed*

61 (11*f*). Return to an Order of the House of the 29th January, 1913, for a copy of all complaints and charges made against Miss Gertie Lewis, as postmistress at Main-a dieu, Cape Breton South, N.S., and of all letters, telegrams and correspondence relating in any way to her dismissal and the appointment of a successor. Presented 9th April, 1913.—*Mr. Carroll* .....*Not printed.*

61 (11*g*). Return to an Order of the House of the 11th December, 1912, for a copy of all correspondence, letters, telegrams and other documents relating to the dismissal of John Taylor, late postmaster at Carnduff, Sask., and of all reports of investigation held, &c. Presented 9th April, 1913.—*Mr. Turriff*.....*Not printed.*

61 (11*h*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Frederick Mitchell, from the position of postmaster at Dominion, Cape Breton South, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same. Presented 9th April, 1913.—*Mr. Carroll.* *Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (11*i*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers, letters, telegrams and other correspondence relating to the dismissal of Thomas J. Sears, postmaster at Lochaber, N.S., and the appointment of his successor; of the evidence taken, and of the report thereon made by Commissioner Duchemin, on the charges, if any, made against the dismissed postmaster. Presented 9th April, 1913.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

61 (11*j*). Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence, letters, telegrams, papers and other documents in connection with the dismissal of the postmaster at Alsask, Saskatchewan. Presented 9th April, 1913.—*Mr. Knowles*..... ....*Not printed*

61 (11*k*). Return to an Order of the House of the 3rd March, 1913, for a copy of all letters, telegrams, instructions and other papers and documents in the possession of the Department of Marine and Fisheries, or any officer thereof, relating to the dismissal or appointment of fishery guardians or fishery officers, in the County of Guysborough, N.S., bearing date since the 10th day of October, 1911. Presented 9th April, 1913.—*Mr. Sinclair*..... .....*Not printed*

61 (11*l*). Return to an Order of the House of the 11th December, 1912, for a copy of all complaints and charges made against John R. Morrison, postmaster at Oban, Richmond County, N.S., and of all letters, telegrams and correspondence relating in any way to his dismissal, and the appointment of a successor. Presented 14th April, 1913.—*Mr. Kyte*..... ....*Not printed.*

61 (11*m*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of A. G. McDonald, postmaster of North East Margaree, Inverness County. Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 14th April, 1913.—*Mr. Chisholm (Inverness)*..*Not printed.*

61 (11*n*). Return to an Order of the House of the 9th December, 1912, for a return showing in detail the number of dismissals from public office by the present government to this date, in the constituency of Qu'Appelle, with the names of the dismissed officers, and the reason for their dismissal, the complaints against such officials and a copy of all correspondence, petitions, papers and documents with respect to the same, and of all notes of evidence and reports of investigations in cases where they have taken place. Presented 14th April, 1913.—*Mr. Thomson (Qu'Appelle)*.....*Not printed.*

61 (11*o*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Department of Marine and Fisheries or any department of the government, relating to the dismissal of David Reid, fishery officer at Port Hilford, N.S., and if there was an investigation, the names of the witnesses examined, a copy of the evidence, and a detailed statement of the expenses of each investigation. Presented 15th April, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (11*p*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Robert Musgrave, postmaster at North Sydney, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 15th April, 1913.—*Mr. McKenzie*.....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (11*g*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of A. D. Archibald, postmaster at Glenelg, Guysborough County, N.S., and of all evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 15th April, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed*

61 (11*r*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Leon N. Poirier, postmaster at Descouse, Richmond County, N.S., and of the evidence taken and of the reports of investigation held by H. P. Duchemin in regard to the same and a detailed statement of the expenss of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 15th April, 1913. *Mr. Kyte*.....*Not printed.*

61 (11*s*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Norman McAskill, postmaster at Framboise, Richmond County, N.S., and of the evidence taken and of the report of investigation held by H. P. Duchemin in regard to the same, and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 15th April, 1913.—*Mr. Kyte*.....*Not printed.*

61 (11*t*). Return to an Order of the House of the 11th December, 1912, for a copy of all papers, documents and correspondence relating to the dismissal of A. T. Doucet, postmaster and collector of customs at Salmon River, Digby County, N.S. Presented 15th April, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

61 (11*u*). Return to an Order of the House of the 29th January, 1913, for a copy of all complaints and charges made against Mrs. Annie Gallivan, as postmistress at Whitney Pier, Cape Breton South, Nova Scotia, and of all letters, telegrams and correspondence relating in any way to her dismissal and the appointment of a successor. Presented 15th April, 1913.—*Mr. Carroll*.....*Not printed.*

61 (11*v*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Wm. J. Paquet, postmaster at Souris, P.E.I. Presented 15th April, 1913.—*Mr. Hughes (Kings, P.E.I.)*.....*Not printed.*

61 (11*w*). Return to an Order of the House of the 27th January, 1913, for a copy of all documents, correspondence, petitions and recommendations, &c., relating to the dismissal of the postmaster at St. Anaclet, County of Rimouski, during the year 1912, and of the appointment of his successor. Presented 15th April, 1913.—*Mr. Lapointe (Kamouraska)*.....*Not printed*

61 (11*x*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of George Gunn, postmaster at French Village, Prince Edward Island. Presented 15th April, 1913.—*Mr. Hughes (Kings, P.E.I.)*.....*Not printed.*

61 (11*y*). Return to an Order of the House of the 4th December, 1912, for a return showing the detail and number of dismissals from public offices by the present government to this date in the riding of Mackenzie, together with the names of the dismissed occupants, the reasons for their dismissal, the complaints against such officials, and a copy of all correspondence with respect to the same, and of all reports of investigations, where any such were held. Presented 15th April, 1913.—*Mr. Cash*..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (11*z*). Return to an Order of the House of the 7th April, 1913, for a copy of all charges investigated by Commissioner W. J. Code, and also of the evidence taken and the report made by the said commissioner. Presented 16th April, 1913.—*Mr. Murphy.* *Not printed.*

61 (12*a*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of D. F. McLean, fishery overseer at Port Hood, Inverness County, N.S., and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 16th April, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed*

61 (12*b*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of J. Scott Nelson, postmaster at Louisdale, Richmond County, N.S., and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same, and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 16th April, 1913. —*Mr. Kyte*.....*Not printed*

61 (12*c*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Joseph McMullen, from the post office at Bridgeport, Cape Breton South, Nova Scotia, and of evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same. Presented 16th April, 1913.—*Mr. Carroll....Not printed.*

61 (12*d*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Frederick A. Martell, postmaster at L'Ardoise, Richmond County, N.S., and of the evidence taken and of the reports of investigation held by H. P. Duchemin, in regard to the same, and a detailed statement of the expenses of such investigation; and a copy of all papers relating to the appointment of his successor. Presented 16th April, 1913.—*Mr. Kyte*.....*Not printed.*

61 (12*e*). Return to an Order of the House of the 11th December, 1912, for a copy of all representations, statements and complaints as to political activity made against John A. Macdonald, postmaster at McArras Brook, Antigonish County, and of all correspondence relating to the charges made against him and of the report of Commissioner Duchemin on said charges. Presented 16th April, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed*

61 (12*f*). Return to an Address to His Royal Highness the Governor General of the 7th December, 1911, for a copy of all papers, correspondence and orders in council in connection with and relating to the dismissal from office of public officials from each of the departments of government since the 1st day of October last past, including both Inside and Outside Service. Presented 18th April, 1913.—*Mr. Carvell.....Not printed.*

61 (12*g*). Return to an Address to His Royal Highness the Governor General of the 3rd March, 1913, for a copy of all papers, documents, correspondence, evidence, order in council, &c., relative to the dismissal of Edward Doucett, sub-collector of customs, Digby County, N.S. Presented 21st April, 1913.—*Mr. McLean (Halifax).* *Not printed.*

61 (12*h*). Return to an Address to His Royal Highness the Governor General of the 3rd March, 1913, for a copy of all papers, documents, correspondence, evidence, orders in council, &c., relative to the dismissal of Mr. LeBlanc, sub-collector of customs, Church Point, Digby County, N.S. Presented 21st April, 1913.—*Mr. McLean (Halifax).* *Not printed*

CONTENTS OF VOLUME 27—*Continued.*

61 (12*i*). Return to an Order of the House of the 19th March, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John C. Bourinot, chief customs officer at Port Hawkesbury, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by Mr. H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 21st April, 1913.—*Mr. Chisholm (Inverness).* *Not printed.*

61 (12*j*). Return to an Order of the House of the 31st March, 1913, for a copy of all charges, evidence, correspondence, letters and telegrams in the Department of Railways and Canals since the 21st day of September, 1911, relating to the dismissal of Alexander E. Morrison, Point Tupper, N.S., from the service of the Intercolonial railway, and of all recommendations for the appointment of his successor. Presented 21st April, 1913.—*Mr. Kyte*.....*Not printed*

61 (12*k*). Return to an Order of the House of the 3rd February, 1913, for a copy of all letters, telegrams, reports and other papers and documents received from the officers of the Canadian Brotherhood of Railway Employees, by the Department of Labour, or of the Department of Railways and Canals, between the 1st day of January, 1912, and the 25th day of January, 1913, relating to investigations and dismissals of employees for political partizanship, and of the replies thereto. Presented 22nd April, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (12*l*). Return to an Order of the House of the 31st March, 1913, for a copy of all complaints and charges against James Falconer, of Newcastle, County of Northumberland, New Brunswick, as correspondent of the *Labour Gazette* at Newcastle, and of all letters, telegrams and other correspondence relating in any way to his dismissal and the appointment of a successor. Presented 22nd April, 1913.—*Mr. Loggie*..*Not printed.*

61 (12*m*). Return to an Order of the House of the 19th March, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John B. Chisholm, lightkeeper at Port Hastings, Inverness County, Nova Scotia, and the evidence taken and report of investigation held by Mr. H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 24th April, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed.*

61 (12*n*). Return to an Order of the House of the 7th April, 1913, for a copy of all correspondence, telegrams, charges and other documents, relating to the dismissal of Epiphane Nadeau, immigration agent at St. Leonard, Victoria County, N.B. Presented 25th April, 1913.—*Mr. Michaud*.....*Not printed.*

61 (12*o*). Return to an Order of the House of the 31st March, 1913, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of D. J. Morrison, boatman in the customs service at Big Bras D'or, North Cape Breton and Victoria, N.S., and of the evidence taken and of reports of the investigation held by H. P. Duchemin, in regard to the same, with a detailed statement of expenses of such investigation. Presented 25th April, 1913.—*Mr. McKenzie.* *Not printed*

61 (12*p*). Return to an Order of the House of the 31st March, 1913, for a copy of all charges, correspondence, letters, telegrams, and other documents relative to the dismissal of Rod McLeod, boatman in the customs service at Big Bras D'or, North Cape Breton and Victoria, N.S., and of the evidence taken and of reports of the investigation held by H. P. Duchemin, in regard to the same, with a detailed statement of expenses of such investigation. Presented 25th April, 1913.—*Mr. McKenzie.* *Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (12*q*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of D. McLachlin, postmaster at Marble Mountain, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 25th April, 1913.—*Mr. Chisholm (Inverness)*.. .. ..*Not printed.*

61 (12*r*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Abram LeBlanc, postmaster at West Arichat, Richmond County, N.S., and of the evidence taken and reports of investigation held by H. P. Duchemin in regard to the same and a detailed statement of the expenses of such investigation, and a copy of all papers relating to the appointment of his successor. Presented 25th April, 1913.—*Mr. Kyte*..... ....*Not printed.*

61 (12*s*). Return to an Order of the House of the 11th December, 1912, for a copy of all correspondence, letters, telegrams and other documents relating to the dismissal of Charles J. Lafford, postmaster at Grand Grove, Richmond County, N.S., and of all evidence taken and report of investigation held by H. P. Duchemin in regard to the same; also a detailed statement of the expenses of such investigation. Presented 25th April, 1913.—*Mr. Kyte*..... .....*Not printed*

61 (12*t*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of W. S. Lawrence, postmaster at Margrave Harbour, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin. in regard to the same; also a detailed statement of the expenses of such investigation. Presented 25th April, 1913.—*Mr Chisholm (Inverness)*.. .. ..*Not printed.*

61 (12*u*). Return to an Order of the House of the 11th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John K. McDonald, postmaster at Whycocomagh, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 25th April, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed*

61 (12*v*). Return to an Order of the House of the 31st March, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Captain P. J. Wilcox, from the customs office at Louisburg, Cape Breton South, Nova Scotia, and of evidence taken and reports of investigations held by H. P Duchemin, in regard to the same. Presented 29th April, 1913.—*Mr. Carroll.*
Not printed

61 (12*w*). Return to an Order of the House of the 31st March, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of M. J. McKennon, from the customs office at Glace Bay, Cape Breton South, Nova Scotia, and of evidence taken and reports of investigation held by H. P. Duchemin, in regard to the same. Presented 29th April, 1913.—*Mr. Carvell*.....*Not printed*

61 (12*x*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Captain John Arsenault, telegraph line repairer at Alder Point, Cape Breton, in the riding of North Cape Breton and Victoria, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to same, and a detailed statement of the expenses of such investigation. Presented 29th April, 1913.—*Mr. McKenzie.*
Not printed.

CONTENTS OF VOLUME 27—*Continued.*

61 (12*y*). Return to an Order of the House of the 9th December, 1912, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Mrs. John Arsenault, telegraph operator at Alder Point, N.S., in the riding of North Cape Breton and Victoria. Presented 2nd May, 1913.—*Mr. McKenzie.*
Not printed

61 (12*z*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Department of Railways and Canals or any department of the government, relating to the dismissal of A. J. Wilkinson, at Mulgrave, N.S. and if there was an investigation, the names of all witnesses examined and a detailed statement of the expenses of such investigation. Presented 2nd May, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (13*a*). Charges made against Mr. H. A. Bayfield, superintendent of dredging, British Columbia.—(*Senate*).. .. ..*Not printed.*

61 (13*b*). Return to an Order of the House of the 31st March, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of H. G. McKay, lighthouse keeper at Bird Island, Big Bras D'or, North Cape Breton and Victoria, and of the evidence taken, and of reports of the investigation held by H. P. Duchemin, in regard to the same, with a detailed statement of expenses of such investigation. Presented 5th May, 1913.—*Mr. McKenzie*.....*Not printed.*

61 (13*c*). Return to an Order of the House of the 10th March, 1913, for a copy of all reports, charges, and correspondence in the office of the Department of Marine and Fisheries relating to charges of political partizanship against Michael O'Brien, lightkeeper at Bear Island, Richmond County, N.S., and of the instructions issued to H. P. Duchemin, commissioner, to investigate the same together with the Commissioner's report and finding thereon, and his expenses of holding such investigations. Presented 7th May, 1913.—*Mr. Kyte*.....*Not printed.*

61 (13*d*). Return to an Order of the House of the 17th February, 1913, for a copy of all correspondence, letters, telegrams, reports, recommendations and other documents bearing on or having relation to the dismissal of J. H. Leduc, as medical port officer of the port of Three Rivers, P.Q. Presented 7th May, 1913.—*Mr. Bureau*..*Not printed.*

61 (13*e*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Patrick Shea, postmaster at Tompkinsville, Guysborough County, N.S. Presented 7th May, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (13*f*). Return to an Order of the House of the 29th January, 1913, for a copy of all complaints and charges made against Elias Rawding, postmaster at Clementsport. Annapolis County, N.S., and of all letters, petitions, telegrams, and other correspondence relating in any way to his dismissal and the appointment of a successor. Presented 7th May, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (13*g*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Charles McLean, postmaster at Strathlorne, Inverness County, Nova Scotia Presented 7th May, 1913.—*Mr. Chisholm* (*Inverness*).. .. ..*Not printed.*

61 (13*h*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Angus R. McDonald, postmaster at Broad Cove Chapel, Inverness County, Nova Scotia. Presented 7th May, 1913.—*Mr. Chisholm* (*Inverness*).. ..*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (13*i*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of John McPhail, postmaster at Scotsville, Inverness County, Nova Scotia. Presented 7th May, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed.*

61 (13*j*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, telegrams, complaints, petitions or other documents of any kind received by the government, or any member or official thereof, relating to the conduct of J. Morgan, one time postmaster of the village of Ailsa Craig, Ontario, as such, and relating to an investigation into said conduct. Presented 7th May, 1913.—*Mr. Ross.*
Not printed

61 (13*k*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Roderick McLean, postmaster at Kenlock, Inverness County, Nova Scotia. Presented 8th May, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed*

61 (13*l*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Allan Gillis, postmaster at Gillisdale, South West Margaree, Inverness County, Nova Scotia. Presented 8th May, 1913.—*Mr. Chisholm (Inverness).*
Not printed.

61 (13*m*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of David Shaw, postmaster at Marsh Brook, North East Margaree, Inverness County, Nova Scotia. Presented 8th May, 1913.—*Mr. Chisholm (Inverness).*
Not printed.

61 (13*n*). Return to an Order of the House of the 29th January, 1913, for a copy of all papers concerning the investigation and dismissal of Helen Joubert, postmistress at Sayabec, Quebec. Presented 8th May, 1913.—*Mr. Lemieux*.....*Not printed.*

61 (13*o*). Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence, letters, and telegrams between the Honourable Postmaster General or the Post Office Department, and any person or persons, relative to the dismissal or the request therefor of D. A. Redmond, until recently postmaster at Brinston, Ontario. Presented 8th May, 1913.—*Mr. Graham*.....*Not printed.*

61 (13*p*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Dan. McEachern, postmaster at McEachern's Mills, Broad Cove Chapel, Inverness County, Nova Scotia. Presented 8th May, 1913.—*Mr. Chisholm (Inverness).*
Not printed.

61 (13*q*). Return to an Order of the House of the 3rd February, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Daniel Dunlop, postmaster at New Campbellton, riding of North Cape Breton and Victoria, N.S., and of the evidence taken and reports of the investigation held by H. P. Duchemin, in regard to same, with a detailed statement of expense of such investigation. Presented 8th May, 1913.—*Mr. McKenzie*.....*Not printed.*

61 (13*r*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of Arthur Armstrong, postmaster at Greenfield, Carleton County, N.B. Presented 8th May, 1913.—*Mr. Carvell*.....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (13*s*). Return to an Order of the House of the 3rd February, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Alex. Matheson, postmaster at Boulardarie Centre, north riding Cape Breton and Victoria. Presented 8th May, 1913.—*Mr. McKenzie*.....*Not printed.*

61 (13*t*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Arthur Talbot, late postmaster at Robertsville, County of Megantic, Province of Quebec. Presented 8th May, 1913.—*Mr. Pacaud*.....*Not printed.*

61 (13*u*). Dismissal of N. C. Lyster, late postmaster at Lloydminster, Sask.—(*Senate*). *Not printed.*

61 (13*v*). Return to an Order of the House of the 2nd April, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of Mrs. Maggie Cameron, postmistress at Achosnach, Inverness County, Nova Scotia. Presented 9th May, 1913.—*Mr. Chisholm (Inverness)*.. .. .. ..*Not printed.*

61 (13*w*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of David Fraser, postmaster at North East Margaree, Inverness County, Nova Scotia. Presented 9th May, 1913.—*Mr. Chisholm (Inverness)*.. .. .. ..*Not printed.*

61 (13*x*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal and retention of W. Stayley Porter, postmaster, Port Maitland, Yarmouth County, N.S., and of the evidence taken and report of investigation held by Charles Lane, in regard to the same; also a detailed statement of expenses of such investigation. Presented 9th May, 1913.—*Mr. Law*.....*Not printed*

61 (13*y*). Return to an Order of the House of the 29th January, 1913, for a copy of all charges, telegrams and other documents relating to the dismissal of Alex. McQueen, postmaster at Kowstoke, Inverness County, Nova Scotia, and of the evidence taken and report of investigation held by H. P. Duchemin, in regard to the same; also a detailed statement of the expenses of such investigation. Presented 9th May, 1913.—*Mr. Chisholm (Inverness)* .. ..*Not printed.*

61 (13*z*). Return to an Order of the House of the 3rd February, 1913, for a return showing the number of employees of the Department of Public Works who have been dismissed in the County of Berthier since the 21st September, 1911, giving the names of the said employees; if an inquiry was held in each case; on whose recommendation, in each case, these dismissals were made; the names of those appointed successors to these persons and on whose recommendation. Presented 12th May, 1913.—*Mr. Beland*. *Not printed.*

61 (14*a*). Return to an Order of the House of the 10th February, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents in connection with the dismissal and retention of Jesse L. Morton, postmaster at Lower Argyle, N.S., and of the evidence taken and report of the investigation held by Mr. Lane, in regard to the same, also a detailed statement of the expenses of such investigation. Presented 20th May, 1913.—*Mr. Law*.....*Not printed*

61 (14*b*). Return to an Order of the House of the 10th February, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents in connection with the dismissal of Mrs. M. C. Gaudet, postmistress at West Pubnico, Yarmouth County, N.S., and of the evidence taken and report of the investigation held by Mr. Lane, in regard to same, and also a detailed statement of the expenses of such investigation Presented 20th May, 1913.—*Mr. Law*.....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (14*c*). Return to an Order of the House of the 28th April, 1913, for a copy of all charges, correspondence, telegrams, and other documents relative to the dismissal of John P. McKinnon, section foreman on the Intercolonial railway at Shubenacadie, in the riding of North Cape Breton and Victoria, N.S. Presented 20th May, 1913.—*Mr. McKenzie*.....*Not printed.*

61 (14*d*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of Mary A. Bohan, as postmistress at Bath, Carleton County, N.B. Presented 21st May, 1913.—*Mr. Carvell*.....*Not printed.*

61 (14*e*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of Edward Lafferty, postmaster at Benton, Carleton County, N.B. Presented 21st May, 1913.—*Mr. Carvell*.....*Not printed.*

61 (14*f*). Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, telegrams, evidence and other documents regarding the dismissal of Dennis McGaffigan, postmaster at Florenceville, Carleton County, N.B. Presented 21st May, 1913.—*Mr. Carvell*.....*Not printed.*

61 (14*g*). Return to an Order of the House of the 27th January, 1913, for a copy of all correspondence and documents bearing upon any change made or asked for in the employees of the Department of Marine and Fisheries in the County of Bonaventure between 5th December, 1912, up to date. Presented 27th May, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

61 (14*h*). Return to an Order of the House of the 15th January, 1913, for a copy of all charges, correspondence, letters, telegrams and other documents relating to the dismissal of J. A. McKenzie, postmaster at Ashfield, Inverness County, N.S. Presented 2nd June, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed.*

61 (14*i*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, reports and other papers and documents in the possession of the Post Office Department, or any department of the government, relating to the dismissal of James Bowles, postmaster at Alder River, N.S., and if there was an investigation, the names of all the witnesses examined, a copy of the evidence, and a detailed statement of the expense of such investigation. Presented 2nd June, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (14*j*). Return to an Order of the House of the 21st April, 1913, for a copy of all correspondence, complaints, reports, recommendations, petitions, certificates and other documents relating to the dismissal of Mr. Edmund Lacroix, as postmaster of the Parish of St. Joseph du Lac, County of Two Mountains, and the appointment of Rodrique Larocque, of the same place as postmaster. Presented 2nd June, 1913.—*Mr. Ethier*.....*Not printed*

61 (14*k*). Return to an Order of the House of the 26th May, 1913, for a copy of all papers, letters, documents, reports and inquiry, relating to the lighthouse keeper of the Parish of Repentigny, County of L'Assomption. Presented 3rd June, 1913.—Mr. *Seguin*.....*Not printed.*

61 (14*l*). Return to an Order of the House of the 16th April, 1913, for a copy of all papers, documents, evidence, reports, &c., relating to the dismissal of B. C. Kanock, late shipping master at Lunenburg, N.S. Presented 4th June, 1913.—*Mr. McLean (Halifax)*. *Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

61 (14*m*). Return to an Order of the House of the 3rd March, 1913, for a copy of all complaints, accusations, correspondence, petitions and telegrams, respecting the dismissal of Ulric Thibaudeau, agent for pilots at Quebec, and of all documents respecting the appointment of his successor, such as petitions, letters of recommendation, &c., and of the evidence and report made after the inquiry held by the inquiring commissioner; and also a detailed statement of the expenses caused by this inquiry. Presented 4th June, 1913.—*Mr. Delisle*.....*Not printed.*

61 (14*n*). Supplementary return to an Order of the House of the 20th January, 1913, for a return showing the names of all officials of the Marine and Fisheries Department who have been dismissed or removed in the County of Pictou, the reasons of the same, the evidence taken at any investigation held in regard to them, and the reports of said investigations, the names of their successors, and a copy of all letters, charges, complaints and recommendations from any person or persons in regard to the said removals or dismissals, or in regard to the appointment of their successors. Presented 4th June, 1913.—*Mr. Macdonald*.....*Not printed.*

61 (14*o*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Post Office Department, or any department of the government relating to the dismissal of Captain Freeman Myers, postmaster at Cole Harbour, Guysborough County, N.S., and if there was an investigation, the names of all witnesses examined, a copy of the evidence, and a detailed statement of the expenses of such investigation. Presented 4th June, 1913.—*Mr. Sinclair.*
Not printed

61 (14*p*). Return to an Order of the House of the 4th December, 1912, for a return showing all public officers removed by the present government in the district of St. James, Montreal, together with the names and duties of such persons, the reasons of their dismissal, the nature of the complaints brought against them, and a copy of all correspondence relating thereto, and of reports of inquiries in the cases where such have been held. Presented 4th June, 1913.—*Mr. Lapointe (Montreal)*.....*Not printed*

61 (14*q*). Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a return showing all the employees of the Dominion government in the constituency of Edmonton, dismissed between 10th of October, 1911, and 21st of November, 1912, the salary being paid to such employee at the time of his dismissal, together with a copy of all correspondence, recommendations to council, orders in council, and all other papers or documents in any way connected with such dismissals. Presented 4th June, 1913.—*Mr. Oliver*.....*Not printed.*

61 (14*r*). Return to an Order of the House of the 4th December, 1912, for a return showing the names of all officials in the district of Sunbury and Queens, who have been dismissed or removed from office since September, 1911, the reason for such dismissal or removal, the evidence taken at any investigation held in regard to them, the reports upon such investigations, the name of any successor appointed in place of dismissed officials, and a copy of all letters, charges, complaints and recommendations in regard to the said removals or dismissals, or in regard to the appointment of their successors. Presented 4th June, 1913.—*Mr. McLean (Sunbury)*.....*Not printed.*

61 (14*s*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Department of Marine and Fisheries, or any department of the government relating to the dismissal of Levi Munroe, harbour master at

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White Head, N.S., and if there was an investigation, the names of all witnesses examined, a copy of the evidence, and a detailed statement of the expenses of such investigation. Presented 4th June, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (14*t*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Post Office Department, or any department of the government, relating to the dismissal of Stanford Langley, postmaster at Isaac Harbour North, N.S., and if there was an investigation the names of all witnesses examined, a copy of the evidence, and a detailed statement of the expenses of such investigation. Presented 5th June, 1913.—*Mr. Sinclair*.....*Not printed.*

61 (14*u*). Return to an Order of the House of the 24th February, 1913, for a copy of all letters, telegrams, correspondence, charges, evidence, reports, and other documents relating to the dismissal of Hugh R. McAdam as postmaster at Arisaig, N.S., and the appointment of Reverend Daniel L. Macdonald as his successor. Presented 5th June, 1913.—*Mr. Chisholm (Antigonish)*..... .....*Not printed.*

61 (14*v*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Post Office Department, or any department of the government, relating to the proposed dismissal of J. J. McNeil, at Grant's Lake, N.S., and if there was an investigation, the names of the witnesses examined and a detailed statement of the expenses of such investigation. Presented 5th June, 1913.—*Mr. Sinclair*..... ....*Not printed.*

61 (14*w*). Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, evidence, reports and other papers and documents in the possession of the Department of Railways and Canals, or any department of the government, relating to the dismissal of Alex. McInnis, car inspector of the Intercolonial railway at Mulgrave, N.S., and if there was an investigation, the names of all witnesses examined, a copy of the evidence, and a detailed statement of the expenses of such investigation. Presented 6th June, 1913.—*Mr. Sinclair*..*Not printed.*

61 (14*x*). Return to an Order of the House of the 28th April, 1913, for a copy of all charges, correspondence, telegrams, and other documents relative to the dismissal of Archibald McDonald, bridge tender on the Intercolonial railway at Grand Narrows, Iona, riding of North Cape Breton and Victoria, N.S. Presented 6th June, 1913.—*Mr. McKenzie*..... .....*Not printed.*

61 (14*y*). Names of all officials dismissed in Shelburne and Queens from 1st December, 1896. —(*Senate*)..... ....*Not printed.*

62. Return to an Order of the House of the 4th December, 1912, for a return showing the number of all contracts cancelled in the County of Bonaventure since the 1st of October, 1911; the names of the contractors, the prices paid to them, the reasons for the cancellation in each case; and a copy of any investigations and reports had into the causes of such cancellations, the names of the new contractors and the prices paid to them in each case. Presented 14th January, 1913.—*Mr. Marcil (Bonaventure).* *Not printed.*

62*a*. Return to an Order of the House of the 5th December, 1912, for a return showing the number of rural mail delivery routes that have been established in Canada since the 1st January, 1912, in each province and county, respectively. Presented 14th January, 1913.—*Mr. Lemieux* .....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

62*b*. Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence, letters, telegrams, complaints and other documents relating to the cancelling of the contract for conveying His Majesty's mails, entered into on the 1st day of January, 1912, between the Honourable Postmaster General and Mr. J. C. Beeman, of Guthrie, County of Missisquoi; together with the reason for the cancellation of this contract, the price paid to Mr. Beeman, the name of the present contractor and the price paid to him. Presented by Hon. Mr. Pelletier.—*Mr. Kay*.....*Not printed.*

62*c*. Return to an Order of the House of the 11th March, 1912, for a copy of all letters, requests, memorandums, tenders and other documents in the possession of the Post Office Department relating to the calling for tenders and the granting of the contract now in force for the carrying of the mail between Sorel and Ste. Victoire, County of Richelieu. Presented 20th January, 1913.—*Mr. Cardin*.....*Not printed.*

62*d*. Return to an Order of the House of the 4th December, 1912, for a copy of all papers, letters, telegrams, tenders, bonds, agreements, contracts and other documents in the possession of the Post Office Department relating to the letting of the contract for carrying the mails between Heatherton and Guysborough, in the year 1912; and also relating to any temporary agreement entered into prior to the date of letting such contract. Presented 21st January, 1913.—*Mr. Sinclair*.....*Not printed*

62*e*. Return to an Order of the House of the 29th January, 1913, for a copy of all letters and other documents relating to the establishment of a rural mail service between Saltsprings and West River Station, in the County of Pictou, in the year 1912. Presented 17th February, 1913.—*Mr. Macdonald*.....*Not printed.*

62*f*. Return to an Order of the House of the 29th January, 1913, for a copy of all letters, and other documents relating to the establishment of a rural mail delivery service between Merigonish Station, County of Pictou, and Arisaig, in the County of Antigonish, in the year 1912. Presented 17th February, 1913.—*Mr. Macdonald.*
Not printed

62*g*. Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence, letters, telegrams and reports regarding the termination of H. D. Decoste's contract for carrying the mails between Linwood Station and Linwood post office and the making of a new contract with D. Delorey, from the 1st January, 1913. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed.*

62*h*. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, complaints, recommendations, telegrams and reports bearing on the railway mail service in Bonaventure County from October, 1911, up to date, and on the appointment and dismissal of officers in such connection, with the names, residences, salaries and duties, as well as of all documents bearing on the suspension of the railway mail service during the period mentioned, as well as a copy of all documents referring to agreements made to meet such a contingency during the coming winter. Presented 25th March, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

62*i*. Return to an Order of the House of the 9th December, 1912, for a copy of all tenders received and the contracts entered into for the carrying of the mails between St. Andrew and Beauley, County of Antigonish, and of all letters, telegrams and correspondence on file in the Post Office Department containing any recommendation or advice regarding the awarding of such contract, or in any way referring thereto. Presented 26th March, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

62*j*. Return to an Order of the House of the 3rd February, 1913, for a return showing what changes, if any, have been made in the contracts for the carrying of the mails in the County of Berthier, since the 21st September, 1911; in what parishes, on what date, and for what reason; to whom have the new contracts been granted, and if a tender was asked for in each case. Presented 14th April, 1913.—*Mr. Béland.*
Not printed

62*k*. Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, bonds, reports and other papers and documents in the possession of the Post Office Department, or any department of the government, relating to the letting of the mail contract between Guysborough and Charlos Cove, County of Guysborough, N.S., during the year 1912. Presented 28th April, 1913.—*Mr. Sinclair.*
Not printed.

62*l*. Return to an Order of the House of the 14th April, 1913, showing the names of the various railway mail clerks employed, respectively, on the Montreal and Quebec divisions and the date of the appointment and residence of each. Presented 7th May, 1913.—*Mr. Bureau* .....*Not printed.*

62*m*. Return to an Order of the House of the 9th April, 1913, for a copy of the contract entered into by the Post Office Department with the Ontario Equipment Company of Ottawa relating to the purchase of locks for mail bags. Presented 7th May, 1913.—*Mr. Carvell* .....*Not printed.*

62*n*. Return to an Order of the House of the 7th April, 1913, for a copy of all correspondence, telegrams, &c., exchanged between the Honourable the Postmaster General and Dr. Faucher, of Quebec, concerning the purchase of a certain patented lock for mail bags. Presented 7th May, 1913.—*Mr. Lapointe (Kamouraska)*.. .. .. ..*Not printed.*

62*o*. Return to an Order of the House of the 7th April, 1913, for a copy of all correspondence, telegrams, &c., exchanged between the Honourable the Postmaster General and Mr. Aimé Dion, advocate of Quebec, concerning the purchase of a certain patented lock for mail bags. Presented 7th May, 1913.—*Mr. Verville*.....*Not printed.*

62*p*. Return to an Order of the House of the 29th January, 1913, for a copy of all letters, petitions, telegrams, complaints, reports, bonds of indemnity, and all other papers and documents in the possession of the Post Office Department, or any department of the government, relating to the contract for carrying the mails between Linwood or some point of the Intercolonial railway, County of Antigonish, N.S., and Grosvenor, County of Guysborough, N.S. Presented 9th May, 1913.—*Mr. Sinclair*....*Not printed.*

62*q*. Return to an Order of the House of the 24th April, 1913, for a return showing the full names of the mail carriers in the County of Vaudreuil and Soulanges; between what place they perform the service; the distance between each of these places; the amount of each carrier's contract, and the amount the government paid for the carriage of the mail in these different places before September, 1911. Presented 16th May, 1913.—*Mr. Boyer*.....*Not printed.*

62*r*. Return to an Order of the House of the 7th May, 1913, for a return showing the number of post offices in Yarmouth County, Nova Scotia, not served with daily mail, giving the names and the number of times per week served. Presented 20th May, 1913. —*Mr. Law*..... ..... *Not printed.*

62*s*. Return to an Address to His Excellency the Administrator of the 7th April, 1913, for a copy of all orders in council, reports of experts and contracts, in connection with

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the different purchases of rural mail delivery boxes made by the Post Office Department since 1908, until 1st January, 1912. Presented 21st May, 1913.—*Mr. Lemieux.* *Not printed.*

62*t*. Return to an Order of the House of the 12th May, 1913, for a return giving the names of the post offices and of the postmasters in the Counties of Soulanges and Vaudreuil. Presented 21st May, 1913.—*Mr. Boyer*.....*Not printed.*

62*u*. Return to an Order of the House of the 5th December, 1912, for a copy of all letters, telegrams, petitions and other documents relating to the establishment of rural mail delivery routes in the County of Pictou since the 1st October, 1911, with a statement of all routes applied for, of routes established and of those refused, and the reason for their refusal. Presented 2nd June, 1913.—*Mr. Macdonald*.....*Not printed.*

62*v*. Return to an Order of the House of the 31st March, 1913, for a copy of all correspondence concerning the purchase of new locks for mail bags by the Post Office Department from the Ontario Equipment Company. Presented 4th June, 1913.—*Mr. Carvell.* *Not printed.*

62*w*. Return to an Order of the House of the 17th February, 1913, for a copy of all correspondence, letters, telegrams, memoranda, tenders, bonds and all other documents relative to the contract for the carrying of the mail between the post office and Canadian Pacific Railway station at Three Rivers and vice versa, since the eleventh day of October, 1911, to date. Presented 4th June, 1913.—*Mr. Tobin*.....*Not printed.*

62*x*. Return to an Order of the House of the 21st April, 1913, for a copy of all correspondence, telegrams, complaints, affidavits, reports, recommendations, requests, certificates, contracts and other documents relating to the cancelled contract of M. E. Bougie, for carrying the mails between the post office and railway station at Bromptonville, Quebec. Presented 4th June, 1913.—*Mr. Bureau*.....*Not printed.*

63. Return to an Order of the House of the 4th December, 1912, for a return showing all the new post offices opened in the County of Bonaventure, since October, 1911, up to date, and a copy of the correspondence in connection therewith, together with the names of such post offices and postmasters, and the location of such offices; and also a copy of all papers asking for such offices. Presented 14th January, 1913.—*Mr. Marcil (Bonaventure)*..... ....*Not printed.*

64. Return to an Order of the House of the 9th December, 1912, for a copy of all petitions, correspondence, memoranda, recommendations and other papers or documents in the possession of the Department of Marine and Fisheries relating to the proposals to supply medicine or medical attendance free, or otherwise, to Canadian boat fishermen. Presented 14th January, 1913.—*Mr. Sinclair*.....*Not printed.*

65. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, petitions, complaints, memoranda, reports and investigations regarding the service performed by the steamer *Canada*, owned by the Inter-Provincial Navigation Company of Fraserville, Quebec, since October, 1911, up to date, and also of all documents bearing on the present contract with the Department of Trade and Commerce, or the renewal or extension thereof. Presented 14th January, 1913.—*Mr. Marcil (Bonaventure)*..... ....*Not printed*

66. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, telegrams, letters, &c., relating to the matter of the establishment of a lobster hatchery at Spry Bay, Halifax County, N.S. Presented 14th January, 1913. —*Mr. Maclean (Halifax)*..... .....*Not printed.*

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67. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, telegrams, &c., between the Department of Trade and Commerce and any company, person or persons, relative to the continuance and payment of a subsidy towards a steamship service between St. John, N.B., and Bear River, N.S., for the fiscal year 1912, and performed during the fiscal year 1911. Presented 17th January 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

67*a*. Return to an Order of the House of the 4th December, 1912, for a copy of all papers, documents, memoranda, letters, telegrams and documents bearing on a request for a subsidy for a steam service between Bonaventure, Quebec, or any other part of Bonaventure County and Bathurst, New Brunswick, or any other part of Gloucester County, New Brunswick, and between New Richmond, Quebec, and Dalhousie, New Brunswick, and between Carleton and Miguasha, Quebec, and Dalhousie, New Brunswick, or Campbellton, New Brunswick, or both, as well as a copy of all replies made for such subsidies and this since October, 1911, to date. Presented 14th January, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

67*b*. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all advertisements, tenders, contracts, orders in council, memoranda, papers, letters and correspondence in any way relating to a subsidized steamship service between Canadian ports and any ports of the British West Indies, or any proposed improvement or extension of such steamship service since 1st November, 1911 to the present time. Presented 15th January, 1913.....*Not printed.*

67*c*. Return to an Order of the House of the 4th December, 1912, for a copy of all reports made by officials of the Department of Railways and Canals on the Quebec and Oriental railway, and the Atlantic, Quebec and Western railways, together with a statement of the subsidies paid such railways since October, 1911, up to date, and a copy of all correspondence in that connection. Presented 17th January, 1913.—*Mr Marcil (Bonaventure)*.....*Not printed*

67*d*. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence between the Minister of Railways or any other member of the government and any person regarding the acquisition by the government of Canada of the Quebec Oriental railway, formerly the Atlantic and Lake Superior railway, and the Atlantic, Quebec and Western railway, or both. Presented 27th January, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

67*e*. Return to an Order of the House of the 29th January, 1913, for a copy of the report made to the Minister of Railways and Canals by the party of government engineers who inspected the Quebec and Saguenay railway during December, 1912, January, 1913. Presented 27th February, 1913.—*Mr. Lemieux*.....*Not printed.*

67*f*. Return to an Order of the House of the 17th February, 1913, for a copy of all reports made by any engineers or accountants to the Minister of Railways and Canals on the usefulness of the Atlantic, Quebec and Western railway and the Quebec Oriental railway, to the Intercolonial railway as branch lines or feeders. Presented 27th February, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

67*g*. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all papers, documents, petitions, orders in Council, memoranda, correspondence, &c., by and between the government of Canada or any member thereof, and the government of the province of British Columbia, or any member thereof, since 1st May, 1912, relating to the subject to an increase of the provincial subsidy to the said province. Presented 16th April, 1913.—*Mr. Maclean (Halifax).*
Printed for sessional papers.

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67*h*. Return to an Address to His Royal Highness the Governor General of the 20th January, 1913, for a copy of all documents and memorials of the government of British Columbia presenting claims for additional provincial subsidies, and of all correspondence and orders in council on the same. Presented 16th April, 1913.—*Sir Wilfrid Laurier*..... .....*Printed for sessional papers.*

67*i*. Copy of agreement made with the several provinces as to the expenditure of the subsidies granted under the Agricultural Aid Act, and statement showing the purposes for which said subsidies are to be expended. Presented 6th June, 1913, by Hon. Mr. Burrell.... ....*Not printed*

68. Copies of general orders promulgated to the militia for the period between 2nd November, 1911, and 5th Novmber, 1911. Presented by Hon. Mr. Hughes, 14th January, 1913. *Not printed.*

69. Return to an Address to His Excellency the Right Honourable Sir Charles Fitzpatrick, P.C., &c., administrator, of the 31st March, 1913, for a copy of all papers, documents, petitions, letters, telegrams, orders in council and other papers and documents in possession of the Department of Customs, relating to the duty payable on twine used for fishing purposes, and especially relating to the construction placed upon item 682 of the Customs Tariff. Presented 23rd May, 1913.—*Mr. Sinclair*.....*Not printed.*

70. Return to an Order of the House of the 30th November, 1912, for a return showing:—

1. The date when the present Canadian Pure Food Act, now known as the Adulteration Act, R.S.C., was enacted.

2. What foods, beverages or drugs have standards of strength and purity under the Act been fixed, and what are the dates when such standards become operative.

3. What foods, beverages or drugs have standards of strength and purity been prepared and recommended from time to time by the chief analyst, which have not been put in force, and why were such standards not put in force.

4. How many cases of adulteration together with cases which show standards of quality below those required by the Adulteration Act, have been ascertained by the Dominion analyst since the said Act came into operation.

5. In how many of such cases did prosecutions under the Act or under the Criminal Code follow, and in how many cases were convictions secured. Presented 14th January, 1913.—*Mr. McDonnell*..... .....*Not printed.*

71. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, negotiations, proposals in writing and other papers and documents in the possession of the government, or any department thereof, relating to reciprocity in trade with the United States, bearing date between the 1st day of January, 1890, and the 31st day of December, 1891. Presented 14th January, 1913.—*Mr. Sinclair.* *Not printed*

72. Return to an Order of the House of the 4th December, 1912, for a copy of all letters, telegrams, &c., exchanged between the member for Bellechasse County and the Minister of Agriculture and the Postmaster General, concerning the appointment of an additional physician at the quarantine station of Grosse Ile. Presented 14th January, 1913.—*Mr. Lemieux*..... .....*Not printed.*

72*a*. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, documents, recommendations and reports concerning the appointment of Doctor Pomminville, to the position of surgeon of the St. Vincent de Paul penitentiary, replacing Doctor A. Allaire. Presented 24th January, 1913.—*Mr. Wilson (Laval)*..... ....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

72b. Return to an Order of the House of the 10th December, 1912, for a copy of all letters, telegrams, correspondence and other documents relating to the appointment of Charles W. Hatfield, fishery officer on the Tusket River, Yarmouth County, N.S. Presented 27th January, 1913.—*Mr. Law*.....*Not printed.*

72c. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, letters, requests, telegrams and other documents relating to the appointment of Louis Nadeau as postmaster at Ste. Christine, County of Bagot. Presented 4th February, 1913.—*Mr. Marcil*.....*Not printed.*

72d. Return to an Order of the House of the 29th January, 1913, for a copy of all orders letters, telegrams and other documents in connection with the appointment of Lt.-Col. Warburton, as administrative medical officer at the Charlottetown camp in 1912, and of all letters and telegrams asking for a change in the said appointment, and of all orders and other documents relating to his being superseded, and to the appointment of his junior, Lt.-Col. Jenkins, in his place. Presented 13th February, 1913.—*Mr. Macdonald*.....*Not printed.*

72e. Return to an Order of the House of the 27th January, 1913, for a copy of all documents, letters, correspondence, recommendations, reports, &c., relating to the appointment of Mr. J. Begin as manager of the experimental farm at Ste. Anne de la Pocatière. Presented 13th February, 1913.—*Mr. Lapointe (Kamouraska)*....*Not printed.*

72f. Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence exchanged between Dr. Marcotte, M. Lavallée, M.P., the Honourable the Postmaster General and the Minister of Agriculture, concerning the appointment of an additional medical officer at Grosse Isle quarantine station. Presented 19th February, 1913.—*Mr. Lemieux*.....*Not printed.*

72g. Return to an Order of the House of the 3rd March, 1913, for a copy of all letters, telegrams, recommendations and other papers in connection with the appointment of John Macdonald as Inspector of Inland Revenue for the Maritime Provinces, and of all letters, telegrams, applications, recommendations and other papers received from any other person or persons relative to the applications of other persons for the position. Presented 17th March, 1913.—*Mr. Macdonald*.....*Not printed.*

72h. Return to an Order of the House of the 17th February, 1913, for a copy of all letters, petitions, telegrams, recommendations and other papers and documents, in the possession of the Department of Marine and Fisheries, or any department of the government, relating to the appointment of F. W. Kelley, M.D., as port physician at Bridgewater, N.S. Presented 18th March, 1913.—*Mr. Law*.....*Not printed.*

72i. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a return showing all appointments to office under the Dominion government in the constituency of Edmonton from 10th October, 1911, to 21st November, 1912, with a statement of the salaries in each case, together with a copy of all correspondence, recommendation to council, orders in council, and all other papers or documents in any way connected with such appointments. Presented 28th March, 1913.—*Mr. Oliver*.....*Not printed.*

72j. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, recommendations, reports, memoranda and other documents bearing on the appointment of a general foreman, or other permanent or temporary officials, of the Department of Public Works in the County of Bonaventure since October, 1911, up to date, with the names, residences, duties and salaries of such appointees. Presented 2nd May, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

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72k. Appointment of Mr. McCuskie as postmaster at Waukau, British Columbia.—*(Senate)* *Not printed.*

73. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a return showing all changes made in the Customs Tariff of Canada by order in council since the close of last session of parliament. Presented 14th January, 1913.....*Not printed*

74. Return to an Order of the House of the 9th December, 1912, for a return showing the quantity and value of molasses of cane, as defined in tariff item No. 137a, imported into Canada for the fiscal year ending 31st March, 1912, from each island of the British West Indies, which are parties to the Canada-West India Trade Agreement. Presented 14th January, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

75. Letter of the Honourable F. D. Monk, M.P., to the Right Honourable the Prime Minister, resigning his position as Minister of Public Works, and the letter of the Prime Minister in acknowledgment thereof. Presented by Hon. Mr. Borden, 14th January, 1913.....*Not printed.*

75a. Return to an Order of the House of the 26th May, 1913, for a copy of all letters, reports, documents and all other communications relating to the appointment of Colonel Crowe as Commandant of the Royal Military College and to his resignation of said position, or to the extension of his term of service or to the termination thereof, and of all papers or letters passing between the minister and Colonel Crowe, relative to his resignation or the failure to extend his term of service. Presented 3rd June, 1913.—*Mr. Macdonald*.....*Not printed*

75b. Return to an Order of the House of the 26th May, 1913, for a copy of all letters, reports, complaints and other communications and documents which passed between General McKenzie and the Minister of Militia or his department, previous to, and which led up to the resignation of General McKenzie; and also a copy of said resignation, and the reply of the minister thereto, and of any and all communications had with the War Office thereto, and of all other papers and documents in connection therewith. Presented 4th June, 1913.—*Mr. Macdonald*.....*Not printed.*

76. Return to an Order of the House of the 4th December, 1912, for a copy of all papers, letters, telegrams, complaints and reports, bearing on the delay in the payment of census enumerators in the County of Bonaventure, in connection with the last census, together with the names, residences, amounts, and dates of payment. Presented 15th January, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

77. Report of departmental commission on the official statistics of Canada. Presented 15th January, 1913 .....*Printed for distribution only.*

78. Return to an Order of the House of the 18th March, 1912, for a copy of all correspondence in the possession of the Postmaster General respecting the change of name of Broderick post office in the Province of Saskatchewan, to St. Aldwyn. Presented 15th January, 1913.....*Not printed.*

78a. Return to an Order of the House of the 30th November, 1911, for a copy of all papers, telegrams, letters, &c., between the Postmaster General and any other person respecting the closing or removal of the present post office at Spry Bay, Halifax County. Presented 20th January, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

79. Report of the commissioner Dominion Police Force, for the year 1912. Presented by Hon. Mr. Foster, 15th January, 1913.....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

80. Return to an Order of the House of the 9th December, 1912, for a copy of all correspondence, complaints, reports and all documents relating to the cancelling of lease No. 18778, consented to by the Honourable Minister of Railways and Canals, to Aurile Lebœuf, on the 12th December, 1910.—Presented 16th January, 1913.—*Mr. Papineau.* *Not printed*

81. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of all orders in council passed since 1st October, A.D. 1911, relating to the Board of Management of the Government Railways of Canada, or of any other member thereof, or in any way affecting the same, or any official of the Intercolonial Railway, as regards the duties to be performed or the powers to be exercised by the said Board or any member thereof, or by any such official, together with a copy of all recommendations, letters, applications, instructions, or other correspondence, in any manner relating thereto or having regard to the said orders in council as to the management of the Intercolonial railway. Presented 17th January, 1913.—*Mr. Emmerson*.....*Not printed*

81*a*. Return to an Address to His Royal Highness the Governor General of the 4th December, 1912, for a copy of a certain Order in Council issued during the current year by which certain official reports formerly made to Board of Management of the Intercolonial Railway have been ordered in future to be made to Mr. F. P. Brady. Presented 17th January, 1913.—*Mr. Sinclair*.....*Not printed.*

82. Return to an Order of the House of the 5th December, 1912, for a copy of all papers, including surveys, tenders, and every other record, or document in the possession of the Department of Railways and Canals or any other department of the government relating to the building of a line of railway from Estmere, County of Victoria, Province of Nova Scotia, to the town of Baddeck in the same county. Presented 17th January, 1913.—*Mr. McKenzie*.....*Not printed.*

83. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all documents, papers, tenders, contracts, orders in council and correspondence in connection with the supply of castings for and the purchase of scrap iron from the eastern division of the Intercolonial Railway since 1st May, 1912. Presented 17th January, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

83*a*. Return to an Order of the House of the 9th December, 1912, for a return showing the names of the employees on the dining cars of the Intercolonial Railway and the nature of their employment; and also of the employees on the Pullman cars of the Intercolonial Railway and the nature of their employment. Presented 17th January, 1913. —*Mr. Boulay*.....*Not printed.*

83*b*. Return to an Order of the House of the 9th December, 1912, for a copy of all papers documents, telegrams, letters, &c., relating to a strike of temporary employees of the Intercolonial Railway at Halifax, in August, 1912. Presented 27th January, 1913.—*Mr. Mclean (Halifax)*.....*Not printed.*

83*c*. Return to an Order of the House of the 10th December, 1912, for a copy of all evidence plans, reports, correspondence, &c., respecting an inquiry held concerning an accident on the Intercolonial Railway at St. André de Kamouraska on 7th October, 1912, caused by train No. 33, the maritime express going west. Presented 27th January, 1913.—*Mr. Lapointe (Kamouraska)*.....*Not printed.*

83*d*. Return to an Order of the House, of the 29th January, 1913, for a copy of the evidence taken at the inquiry held in the month of November, 1912, by Mr. MacDonald

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superintendent of the Intercolonial at Lévis, in reference to Alfred Laugnay, an employee of the Intercolonial at St. Charles, County of Bellechasse. Presented 27th February, 1913. *Mr. Lapointe (Kamouraska)*.....*Not printed.*

83c. Return to an Order of the House of the 19th February, 1913, for a copy of all telegrams, letters, petitions, reports of engineers, plans, surveys, and other documents in the possession of the Department of Railways and Canals, and having been received since 1st January, 1912, relating to the construction of a branch line of the Intercolonial Railway into Guysborough County. Presented 18th March, 1913.—*Mr. Sinclair*.....*Not printed.*

83f. Return to an Order of the House of the 24th February, 1913, for a copy of all petitions, resolutions, letters, telegrams and correspondence, relating to free or reduced transportation of hay over the Intercolonial Railway for the farmers of Antigonish County, Nova Scotia, and also of the evidence taken and report made as to the shortage of hay in that and other of the eastern counties of Nova Scotia. Presented 18th March, 1913. *Mr. Chisholm (Antigonish)*.....*Not printed.*

83g. Return to an Order of the House of the 29th January, 1913, for a copy of all letters telegrams, tenders, acceptances of tenders, cancellation of tenders and other papers and documents in the possession of the Department of Railways and Canals, or any department of the government, bearing date after 1st July, 1912, relating to the supply of ice for the use of the Intercolonial Railway at Mulgrave, N.S. Presented 18th March, 1913.—*Mr. Sinclair*.....*Not printed.*

83h. Return to an Order of the House of the 12th February, 1913, for a copy of all letters correspondence, petitions and other documents, on file in the Department of Railways and Canals, or in the office of the Intercolonial Railway at Moncton, relating or in any way appertaining to the new public wharf at Sackville, N.B., and the necessity of establishing in the interest of the traffic of the Intercolonial Railway, and of the shipping and trade facilities of Sackville, and of the commerce of communities adjacent thereto, rail connections between the said wharf and the main line of the said railways at Sackville station; also of all letters and other communications received by the chairman or vice-chairman of the Government Railways Managing Board, or by any official of the said railway, relating in any manner to the said subject, received by them or any of them during the years 1911, 1912 and 1913. Presented 19th March, 1913. *Mr. Emmerson*.....*Not printed*

83i. Return to Order of the House of the 19th March, 1913, for a return showing who the tenderers were, and the amount of each tender for the supply of castings for the Intercolonial Railway during the present year. Presented 28th March, 1913.—*Mr. Macdonald*.....*Not printed.*

83j. Return to an Order of the House of the 19th March, 1913, for a return showing how many kegs of nails were purchased in 1912 for the Intercolonial Railway; the prices paid therefor in each case; whether tenders were invited in the case of each purchase and, if so, who the respective tenderers were and the prices submitted; to whom were the contracts awarded in each case. Presented 28th March, 1913.—*Mr. Murphy.*
Not printed.

83k. Return to an Order of the House of the 19th March, 1913, for a return showing the amounts received by the Intercolonial Railway for freight and passengers respectively for each of the twelve months of the calendar years 1910, 1911 and 1912, at the following stations:—Montreal, Halifax, St. John, Sydney, Truro, Moncton, New Glasgow

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and Amherst; also, the total receipts of the said railway for freight and passe[illegible] respectively during each of the said years. Presented 28th March, 1913.—*Mr. Rhodes.* *Not printed.*

83*l*. Return to an Order of the House of the 20th January, 1913, for a copy of all letters correspondence, telegrams, representations, requests and reports on file in the Department of Railways and Canals, or in the offices of the Intercolonial Railway at Moncton, or among the records of the Government Railways Managing Board, or in the office of the assistant chairman of the Government Railways Managing Board, relating to or in any way connected with the water supply system at Dorchester station on the Intercolonial railway, or relating to the absence of and the total failure to provide a supply of water for drinking or other purposes at that station, or in connection with the dwelling of the station agent in the Station House; and also of all correspondence, letters, requests, recommendations and reports relating to the alleged necessity of additional clerical or other help or assistance at the station. Presented 21st April, 1913.—*Mr. Emmerson*.....*Not printed.*

83*m*. Return to an Order of the House of the 12th February, 1913, for a copy of all correspondence, letters, telegrams, reports and other papers on file in the Department of Railways and Canals, or in the offices of the Intercolonial Railway at Moncton, relating to M. L. Tracy, an employee of the mechanical department of the Intercolonial during the years 1899 and 1900, and of all letters and correspondence relating to the case of the said M. L. Tracy, passing between the then Minister of Railways and Canals and any of the officials of the railway, during those years; also a copy of the letters of D. Pottinger, then general manager, the late James E. Price, then general superintendent, and the late M. Jarvis, then a divisional superintendent of said railway, relating to the same subject during the said period of 1899 and 1900. Presented 21st April, 1913.—*Mr. Emmerson*.....*Not printed.*

83*n*. Return to an Order of the House of the 3rd March, 1913, for a statement of all amounts collected by the Intercolonial Railway for freight on hay carried from Amherst and other stations on the Intercolonial, County of Cumberland, to Antigonish, N.S., and consigned to C. Edgar Whidden or C. B. Whidden & Son, in the month of January last and February instant, and by whom such freight was paid; also a copy of all way bills and bills of lading for the same. Presented 21st April, 1913. —*Mr. Chisholm (Antigonish)*.....*Not printed.*

83*o*. Return to an Order of the House of the 3rd February, 1913, for a copy of all letters petitions, telegrams, complaints, communications, reports and other papers and documents, received since the 1st day of October, 1911, by and now in the possession of the Department of Railways and Canals, the Government Railway Managing Board or any official of the Intercolonial Railway or of the Prince Edward Island railway, relating to or in any manner appertaining to an application for, or a proposed reduction of the working hours for the Intercolonial railway employees at Moncton, or at any other point of the Intercolonial railway or the Prince Edward Island railway. Presented 21st April, 1913.—*Mr. Emmerson*.....*Not printed.*

83*p*. Return to an Order of the House of the 24th February, 1913, for a copy of all complaints, requirements, requisitions, petitions, and correspondence of all kinds made by the Sydney, N.S., Board of Trade, or by the citizens of the city of Sydney, or any of them, having reference to better and increased facilities on the Intercolonial Railway on the Sydney division. Presented 21st April, 1913.—*Mr. Carroll.*

Not printed.

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83*q*. Return to an Order of the House of the 31st March, 1913, for a copy of all letters, papers and other documents relating to the claim for damages for the death of the y ung son of Thomas Hoare, who was killed at a crossing of the Intercolonial Railway in the town of Stellarton in the summer of 1912, and of all petitions, letters, and other papers asking for the placing of gates or other protection at said crossing. Presented 1st April, 1913.—*Mr. Macdonald*.....*Not printed.*

83*r*. Return to an Order of the House of the 14th April, 1913, for a copy of all correspondence exchanged between the Department of Railways and Canals at Moncton and the same department at Campbellton, on the subject of the collision which occurred at St. Moise, during the month of February, 1913, between the trains of E. Smith and the regular train No. 99, omitting from it the inquiry held in the matter. Presented 29th April, 1913.—*Mr. Boulay*.....*Not printed.*

83*s*. Return to an Order of the House of the 7th April, 1913, for a return showing the names, residences and occupations of all the employees of the Intercolonial Railway who have been dismissed in the County of Rimouski since the 21st September, 1911. Presented 29th April, 1913.—*Mr. Lapointe (Kamouraska)*.....*Not printed.*

83*t*. Certified copy of a report of the Privy Council of the 5th May, 1913, covering the appointment of Frederick Passmore Gutelius, as general manager of Government Railways. Presented by Hon. Mr. Cochrane, 7th May, 1913... .. .. ..*Not printed.*

83*u*. Return to an Order of the House of the 31st March, 1913, for a copy of all letters, memorials, petitions, correspondence, reports and other documents in the Department of the Postmaster General, or on file therein, relating or in any wise appertaining to the inauguration or establishing of railway mail facilities between Moncton, N.B., westward over the Intercolonial Railway towards St. John, in the morning, so as to furnish, among other things, opportunities for the transmission of newspapers and other mail matter, along said railway, to make morning connection with the railway mail facilities afforded by the railway from Salisbury, Westmorland County, N.B., running into Albert County, N.B.; and also relating to the establishment of railway mail facilities on each week day evening between Moncton eastward over the said railway by train known as number 84, running between Moncton, N.B., and Springhill Junction, Nova Scotia, thus affording the direct mail connection for newspapers and other mail matter each evening from Moncton to Shediac, Memramcook, Dorchester, Sackville, Amherst, and intermediate points east of Moncton; together with a statement showing what, if any, such railway mail facilities, either by locked bag or otherwise, were established or furnished over either of the said routes, and stating the respective dates when the same were so established or furnished generally, or in relation to any one of the newspapers published in Moncton, either in the morning or in the evening. Presented 12th May, 1913.—*Mr. Emmerson*.....*Not printed.*

83*v*. Return showing whether any contract has been made for the construction or supply of cars of any kind to the Intercolonial Railway since 1st January, 1913, and if so, to whom the contract was awarded; the number of cars, kind or class, and the price to be paid; whether any tenders were called for previous to awarding said contract, and if so, who the tenderers were, the amount of the tender in each case, and if tenders were calld for by private request or public advertisement. Presented 21st May, 1913. —*Mr. Macdonald*.....*Not printed.*

83*w*. Return to an Order of the House of the 28th April, 1913, for a return showing all amounts collected by the Intercolonial Railway for freight on hay shipped from Amherst and other stations on the Intercolonial, in the County of Cumberland, to Antigonish and other stations in the County of Antigonish, during the months of

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January, February and March last; the name of the consigners and of the consignees, the amount of freight paid on each shipment and by whom paid; also a copy of all way-bills and bills of lading for same. Presented 6th June, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed.*

84. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all papers, documents, memoranda, orders in council, letters and correspondence, relating in any way to the closing of the Canadian Immigration Office at Boston, U.S.A., in 1911, and its subsequent re-establishment. Presented 17th January, 1913.—*Mr. McLean (Halifax)*.....*Not printed.*

85. Copies of despatches dated 11th December, 1912, which have been addressed to the Governors General of the Commonwealth of Australia and the Union of South Africa and the Governors of New Zealand and Newfoundland, on the subject of representation of the self-governing Dominions on the Committee of Imperial Defence. Presented by Hon. Mr. Borden, 17th January, 1913.....*Not printed.*

86. Reports in connection with the Tides and Currents of Northumberland Strait.—(*Senate*).....*Not printed.*

87. Archives Branch, *re* transferring of from Department of Agriculture to Secretary of State.—(*Senate*).....*Not printed.*

88. Commission appointed to investigate Indian reserves of British Columbia.—(*Senate*). *Not printed.*

89. Insurance rates between Canadian Atlantic ports, and ports in the United Kingdom.—(*Senate*) .....*Printed for distribution and sessional papers.*

90. Report of departmental commission relating to official statistics of Canada.—(*Senate*). *Printe d for distribution only.*

91. Copy of the Sixth Joint Report of the Commissioners for the Demarcation of the Meridian of the 141st degree of west longitude. Presented by Hon. Mr. Roche, 21st January, 1913.....*Not printed.*

92. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, petitions, memoranda, correspondence, &c., with the Government of British Columbia or any member thereof, with the fishery officers of the Marine and Fisheries Department resident in said province, with salmon canneries in said province, and with any company, person or persons, relating to the prohibition of the export of sockeye salmon from the said province of British Columbia since 15th October, 1911. Presented 20th January, 1913.—*Mr. Maclean (Halifax)*....*Not printed.*

93. Return to an Order of the House of the 20th March, 1912, for a copy of all correspondence and memoranda on the subject of cable rates, exchanged between the Canadian Post Office Department and the British Post Office Department. Presented 20th January, 1913.—*Mr. Lemieux*.....*Not printed.*

94. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all papers, documents, letters, &c., between the Government of Canada and the Commonwealth of Australia for the past twelve months relative to the matter of preferential tariff arrangements between the said two countries. Presented 21st January, 1913.—*Mr. Maclean (Halifax)*..*Printed for sessional papers only.*

95. Report of Mr. Olivar Asselin on an investigation of Belgian and French emigration to Canada. Presented by Hon. Mr. Roche, 21st January, 1913.
Printed for distribution and sessional papers.

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95a. Return to an Order of the House of the 4th December, 1912, for a copy of all complaints, letters, papers, reports, and of all documents bearing on the investigation held at Port Daniel West, Quebec, into the conduct of Edward Dea, as overseer or guardian of the lobster hatchery at that place. Presented 22nd January, 1913.—*Mr. Marcil* ..... *Not printed.*

95b. Report of R. A. Pringle, Esq., K.C., in relation to the investigation of the wreck of the steamer *Mayflower*, on the 12th November, 1912. Presented by Hon. Mr. Hazen, 6th February, 1913..... *Not printed.*

95c. Return to an Address to His Royal Highness the Governor General of the 29th January, 1913, for a copy of the report of the commission appointed to investigate complaints against the United Shoe Machinery Company, together with the order in council appointing the commission, the complaints upon which the order was issued and all action, if any, taken by the government on report of commission, by order in council or otherwise. Presented 11th February, 1913.—*Sir Wilfrid Laurier.*
Not printed

95d. Return to an Order of the House of the 20th January, 1913, for a copy of all evidence, letters, telegrams and other documents in connection with the investigation into the stranding of the D. G. steamer *Earl Grey* at Toney River, County of Pictou, in the spring of 1912; of the reports of the commissioner investigating the same, and of all correspondence, telegrams and documents in connection therewith, and of any departmental action in connection therewith. Presented 18th March, 1913.—*Mr. Macdonald.*
Not printed

95e. Return to an Order of the House of the 27th January, 1913, for a copy of all letters, papers, evidence and other documents in connection with the investigation into the collision between the steamship *City of Sydney* and the tug boat *Douglas H. Thomas*, in Sydney Harbour, 13th November, 1912, and of the findings and reports of the commissioner holding the investigation in regard to the same. Presented 2nd April, 1913.—*Mr. Macdonald*..... *Not printed.*

96. Report of the Second International Moral Education Congress held at the Hague, 22nd to 27th of August, 1912, and as related thereto, on moral instruction in the Canadian public schools, &c., by Mr. J. A. M. Aikins, who was appointed by the government to represent Canada at that Congress. Presented by Hon. Mr. Borden, 21st January, 1913..... *Printed for distribution only.*

97. Return to an Order of the House of the 4th December, 1912, for a copy of all pay-lists, letters, documents, letters and other papers in connection with the expenditures at Cariboo Island in the County of Pictou. Presented 21st January, 1913.—*Mr Macdonald* ..... *Not printed.*

98. Return to an Order of the House of the 22nd January, 1913, for a copy of all correspondence, letters and telegrams between the Minister of Marine and Fisheries, or any officer of his department, and J. A. Gillies, K.C., Sydney, relating to the purchase from John B. Nicholson, of a site for a salmon hatchery at Snidlope Lake, Richmond County, N.S., and also of all accounts, charges and vouchers received from the said J. A. Gillies, for services in connection therewith and the payments made to the said J. A. Gillies in respect of the same. Presented 7th February, 1913.—*Mr. Kyte.*
Not printed

CONTENTS OF VOLUME 27—*Continued.*

99. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents and correspondence, between the Department of Public Works and any person or persons relating to the placing of obstructions in the waters of South West Cove, Lunenburg County, N.S. Presented 24th January, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

100. Return to an Order of the House of the 4th December, 1912, for a copy of all pay-lists, letters, documents, telegrams and other papers in connection with the expenditures at Skinner's Cove in the County of Pictou. Presented 24th January, 1913.—*Mr. Macdonald* .....*Not printed.*

101. Return to an Address to His Royal Highness the Governor General of the 22nd January, 1912, for a copy of all correspondence between the government of Canada and the government of the Province of Ontario, with regard to the extension of the boundaries of the said province. Presented 28th January, 1913.—*Sir Wilfrid Laurier.* *Not printed.*

102. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, reports, and documents, bearing on the claim of C. R. Scoles, of New Carlisle, Quebec, to a balance of subsidy voted to the Atlantic and Lake Superior railway, since October, 1911, to date. Presented 24th January, 1913.—*Mr. Marcil.* *Not printed.*

103. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, letters, telegrams, reports and other documents concerning an alleged defalcation in the accounts of Joseph J. Melanson, clerk in the customs office at Bathurst, County of Gloucester, which caused an inquiry to be held on the 23rd of October last by the Provincial Inspector of Customs, with the name of the accuser. Presented 24th January, 1913.—*Mr. Turgeon*.....*Not printed.*

104. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, letters and telegrams in the custody of the Department of Railways and Canals, or any other department of the government, between the 1st day of September, 1874, and the 1st day of September, 1879, relating to the acquisition or expropriation of lands at St. Peters, N.S., for canal purposes, and relating to the appointment of valuators to apprise the value of such lands; the instructions to such valuators, the report or reports of such valuators, the area of lands taken, and the price paid for same; and also the amount paid each valuator for his services. Presented 27th January, 1913.—*Mr. Kyte*.....*Not printed.*

105. Return to an Order of the House of the 4th December, 1912, for a copy of all the different freight tariffs in force on the line of railway from Matapedia, Quebec, to New Carlisle, Quebec, and from New Carlisle, to Gascons, Quebec, and vice versa, and of any requests that have been received in regard to the change in the same; and also a copy of any requests, petitions, letters, or other documents complaining of the said tariffs. Presented 27th January, 1913.—*Mr. Marcil (Bonaventure).* *Not printed.*

105*a*. Return to an Order of the House of the 10th December, 1912, for a copy of the different freight tariffs in force on the line of railway from Sunny Brae to Ferrona Junction, on the Intercolonial Railway, and of any requests that have been received in regard to the change in the same, and also a copy of any requests, petitions, letters or other documents complaining of said tariff. Presented 27th January, 1913. —*Mr. Sinclair*.....*Not printed.*

CONTENTS OF VOLUME 27—*Continued.*

106. Return to an Order of the House of the 5th December, 1912, for a copy of the original instructions, including maps, specifications, profiles, &c., furnished the engineers on the eastern division of the Transcontinental railway between Winnipeg and Quebec by the chief engineer of the Transcontinental Commission, and approved by the Grand Trunk Pacific Railway Company. Also of all instructions, including specifications and profiles, issued by the chief engineer of the Transcontinental Commission or by the chairman, since 31st October, 1911, which in any way vary, amend, or depart from the original instructions above mentioned. Also, of all correspondence between the Minister of Railways or any official of his department and the chairman of the Transcontinental Commission, or the chief engineer, concerning the departure from the original instructions, either as to the grades, curves and bridges or other permanent structures. Also a copy of all correspondence between the Minister of Railways or any member of the government and any official of the Grand Trunk Pacific Railway Company referring to change of original instructions as regards grades, curves or permanent structures on the said line between Winnipeg and Quebec; and also of all correspondence between the chairman of the Transcontinental Commission or the chief engineer and any official of the Grand Trunk Pacific Railway Company, or any member of its engineering staff, concerning the proposed change of grades, curves, or other permanent structures on the line of the Transcontinental between Winnipeg and the City of Quebec. Presented 30th January, 1913—*Mr. Graham.*
Not printed.

106*a*. Return to an Order of the House of the 7th May, 1913, for a copy of a letter, dated 24th September, 1904, written by Chief Engineer Lumsden of the Transcontinental Commission to Chairman Wade of the same body, in which the former recommended to the latter certain grades on the Transcontinental railway. Presented 15th May, 1913.—*Mr. Graham*.....*Not printed.*

107. Return to an Order of the House of the 20th January, 1913, for a copy of all papers in connection with a claim of L. A. Sauvé to certain buildings at La Pointe des Cascades, on the Soulanges canal, and of all correspondence on the same. Presented 30th January, 1913.—*Sir Wilfrid Laurier*.....*Not printed.*

108. Return to an Order of the House of the 5th December, 1912, for a copy of the contract entered into between the Department of Railways and Canals and W. H. Weller for St. Peters canal improvements, and for a copy of all correspondence between the contractor or any other person, firm or corporation and the Honourable Minister of Railways and Canals relating to the dumping of material removed by the contractor. Presented 30th January, 1913.—*Mr. Kyte*.....*Not printed.*

108*a*. Return to an Order of the House of the 27th January, 1913, for a copy of all correspondence between the Department of Railways and Canals and C. D. Sargent, C.E., and between C. D. Sargent, C.E., and H. G. Stanton, Superintending Engineer of the St. Peters Canal, or between W. H. Weller, contractor for the St. Peters canal improvements, and either or all of said parties relative to work done by the contractor outside of his contract, and the specifications thereof, and also a copy of all correspondence, letters and telegrams between the Department of Railways and Canals or C. D. Sargent, C.E., and any other person, in regard to the same; and of all accounts and vouchers rendered by the contractor to the government of such work, and the payment made by the government to the contractor, specifying whether the same is paid for in full or otherwise. Presented 21st April, 1913.—*Mr. Kyte.*
Not printed.

108*b*. Return to an Order of the House of the 19th March, 1913, for a copy of the accounts of personal expenses paid to Mr. St. Amour, Superintendent of the Soulanges Canal,

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since he entered upon his duties.—Also return to an Order of the House of the 2nd April, 1913, for a copy of all accounts for personal expenses paid by the government to Mr. St. Amour, Superintendent of the Soulanges Canal, since the date of his appointment. Presented 29th April, 1913.—*Mr. Boyer*.....*Not printed.*

109. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, letters, telegrams, petitions and other documents received since the 1st day of January, 1912, asking that the line of railway known as the Vale Road, should be taken over by the Intercolonial Railway. Presented 30th January, 1913.—*Mr. Macdonald*.....*Not printed.*

110. Return to an Order of the House of the 27th January, 1913, for a copy of all correspondence in connection with the issuing of letters patent to the Quebec Railway, Light, Heat and Power Company, Limited, and also said letters patent. Presented 30th January, 1913.—*Mr. Lemieux*.....*Not printed.*

111. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, correspondence, &c., between the Department of Trade and Commerce and Mr. Donnelly, late Canadian Trade Commissioner in Mexico, relating to the closing of the office of such trade commissioner in Mexico. Presented 3rd February, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

112. Return called for by Section 88 of Chapter 62, Revised Statutes of Canada, requiring that the Minister of the Interior shall lay before parliament, each year, a return of liquor brought from any place out of Canada into the territories by special permission in writing of the Commissioner of the Northwest Territories. Presented by Hon. Mr. Roche, 3rd February, 1913.....*Not printed.*

113. Return to an Order of the House of the 22nd January, 1913, for a copy of all letters, telegrams and other papers and documents, relating to the resignation of Lt.-Col. W. F. Moore, 20th Regiment, Halton Rifles, and also of the resignation and the reply thereto. Presented 6th February, 1913.—*Mr. Macdonald*.....*Not printed.*

114. Return to an Order of the House of the 20th January, 1913, for a copy of all letters, papers, telegrams and other documents in connection with the strike of firemen and other men employed on the D.G.S. *Earl Grey*, in the year 1912 and 1913. Presented 11th February, 1913.—*Mr. Macdonald*.....*Not printed.*

115. Return to an Order of the House of the 27th March, 1912, for a copy of all papers, letters and telegrams relating to the applications for, or the granting of, a lease of False Cove Flats, Vancouver, B.C. Presented 11th February, 1913.—*Mr. Macdonald.* *Not printed.*

116. Return to an Order of the House of the 27th January, 1913, for a copy of all correspondence and other papers in connection with a proposed guarantee of bonds to the Quebec and Saguenay railway. Presented 11th February, 1913.—*Mr. Lemieux*....*Not printed.*

116a. Return to an Order of the House of the 9th April, 1913, for a copy of all documents, including petitions, memorials, letters and telegrams, addressed to the government, or any of its members, urging it to take over and incorporate into the Canadian government railway system, the Quebec and Oriental Railway and the Atlantic, Quebec and Western Railway, with a copy of all the answers thereto. Presented 20th May, 1913. —*Mr. Marcil (Bonaventure)*.....*Not printed.*

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116*b*. Return to an Address to His Royal Highness the Governor General of the 11th December, 1912, for a copy of all orders in council in connection with the construction of a line of railway from St. John to Grand Falls in the Province of New Brunswick, or any portion thereof and also of all plans and profiles filed with the Department of Railways and Canals by the St. John and Quebec Railway Company, and of all correspondence between the Department of Railways and Canals or any official thereof and with the said company or the Government of the Province of New Brunswick, or any official thereof, with reference to the curves, grades or general specifications of the said railway or any portion thereof. Presented 20th May, 1913.—*Mr. Carvell.*
Not printed

116*c*. Return to an Order of the House of the 28th April, 1913, for a copy of all memorials, petitions, letters, and other documents submitted to the Board of Railway Commissioners from 1st January, 1913, to date, by any party whatsoever regarding the service of the Quebec and Oriental Railway and the Atlantic, Quebec and Western Railway, as to freight, passengers and express matters, with a copy of all orders and rulings issued by such Board and of all correspondence in connection therewith. Presented 20th May, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

117. Return to an Address to His Royal Highness the Governor General of the 5th December, 1912, for a return showing the number of appeals made to the Governor in Council during the twelve months preceding 25th November, 1912, against orders of the Board of Railway Commissioners, the particulars of each appeal, and the decision rendered by the Governor in Council in each case. Presented 11th February, 1913.—*Mr. Graham* .....*Printed for sessional papers only.*

118. Return to an Address to His Royal Highness the Governor General of the 22nd January, 1913, for a copy of all orders in council and of all correspondence relating to the extension of facilities for obtaining information useful to Canadian Trade and Commerce in connection with the British Consular Service. Presented 11th February, 1913.—*Mr. Ames*.....*Not printed.*

119. Return to an Order of the House of the 24th January, 1913, for a return showing all the employees of the different departments at Ottawa, and also in the nine provinces and territories of Canada, and other places outside of Canada, in the inside and outside service, who have left their employment since the 1st October, 1911, up to the 10th January, 1912, inclusively, with their names, Christian names, age, nationality, employment and salaries respectively; the date of their appointment; the date of their leaving; their salaries, the time of their appointment and at leaving; the reasons of their leaving; and if replaced or not; the names, Christian name, age, nationality, employment and salary of those who have replaced them; and in the case of dismissals, a list of the persons who asked for their dismissals; in the case of these replacing them, a list of the persons who recommended their successors Presented 11th February, 1913.—*Mr. Wilson (Laval)*.....*Not printed.*

119*a*. Supplementary return to an Order of the House of the 24th January, 1912, for a return showing all the employees of the different departments at Ottawa, and also in the nine provinces and territories of Canada, and other places outside of Canada, in the inside and outside service, who have left their employment since the 1st October, 1911, up to the 10th January, 1912, inclusively, with their names, Christian names, age, nationality, employment and salaries respectively; the date of their appointment; the date of their leaving; their salaries at the time of their appointment and at leaving; the reasons of their leaving; and if replaced or not; the names, Christian name, age, nationality, employment and salary of those who have replaced them;

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and in the case of dismissals, a list of the persons who asked for their dismissals; in the case of these replacing them, a list of the persons who recommended their successors. Presented 17th March, 1913.—*Mr. Wilson (Laval)*.....*Not printed.*

120. Return to an Address to His Royal Highness the Governor General of the 5th February, 1912, for a copy of all tenders, contracts, reports and other memoranda of the engineers of the Department of Public Works, orders in council, correspondence and all other documents relating to the construction of a dam for storage purposes at the foot of Lake Timiskaming. Presented 12th February, 1913.—*Mr. Pugsley.*
Not printed.

120*a*. Return to an Order of the House of the 4th March, 1912, for a copy of all contracts, correspondence or writings whatsoever, respecting the construction of a dam in 1908 or 1909, called the Lake Timiskaming dam constructed or built over the rivers forming the inflow or the discharge of the said lake, exchanged between the Government of Canada and the contractor or contractors. Presented 12th February, 1913.—*Mr. Boulay*.....*Not printed.*

121. Return to an Order of the House of the 28th March, 1912, for a return giving a list of the subjects of the oil paintings and water colours which have become the property of the National Gallery of Canada since 1891; and the names of the artists in each case. Presented 12th February, 1913.—*Mr. Burnham*.....*Not printed.*

122. Return to an Order of the House of the 27th January, 1913, for a copy of all documents, letters, correspondence, reports, recommendations, &c., relating to the petition of Mr. Firmin Thibault, of St. Denis, County of Kamouraska, for his indemnity for having served at the time of the Fenian invasion. Presented 13th February, 1913.—*Mr. Lapointe (Kamouraska)*.....*Not printed.*

123. Return to an Order of the House of the 27th January, 1913, for a return showing what date or dates the government purchased the site for the new Dominion Rifle Range in the County of Carleton, Ontario, from whom were the several parcels of land purchased, and what price per acre was paid for each, the number of acres of land purchased, and the total amount paid therefor, if any buildings have been erected on the said lands by the government, and the cost thereof, the amounts paid by the government for commissions, fees, agency charges, and legal expenses, and to whom in connection with said purchase, the amount of money expended by the Government on the said range for all purposes, from the date of the original purchase of the land up to 23rd January, 1913, and any sums remaining to be paid in any way connected with the purchase of the said range, to whom and the respective amounts thereof, the distance from the post office in the City of Ottawa to the said range, if any line of electric or other railway runs from the City of Ottawa to the said range, and what means of transportation will be provided for riflemen going to and returning from the said range. Presented 13th February, 1913—*Mr. Wilson (Laval)*.....*Not printed.*

124. Return to an Address to His Royal Highness the Governor General of the 10th February, 1913, for a copy of the memorial presented to the Government during the session of 1911-12, by a delegation from the Government of Prince Edward Island asking for an increased provincial subsidy, a copy of which memorial was laid on the Table of the House by the Finance Minister last session of Parliament, but is not now apparently on the files of the House Presented 17th February, 1913.—*Mr. Hughes (Kings, P.E.I.)*.....*Printed for sessional papers only.*

125. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all papers, letters, telegrams and correspondence between the Government of Canada or any member thereof, since 1st November, 1911, to the pre-

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same time, with any corporation, company, party or parties, in any way relating to the Customs Tariff upon cement or to the temporary reduction made of the Customs Tariff upon cement; also for a copy of all letters and correspondence by and between members of the Government of Canada during the same period relating to the same subject, and of all papers, documents, memoranda and orders in council relative to the reduction of the Customs Tariff upon cement made by order in council since the close of the last session of parliament. Presented 17th February, 1913.—*Mr. Maclean (Halifax)* ..... *Not printed.*

125a. Return to an Address to His Royal Highness the Governor General of the 20th January, 1913, for a copy of all petitions since the 1st of October, 1911, addressed to the Governor General in Council or to any member of the government, asking for a remission and the adjustment of duty on cement, of all letters to the ministers individually on the same, of all correspondence and of all orders in council. Presented 21st February, 1913.—*Sir Wilfrid Laurier*.....*Not printed.*

125b. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all papers, documents, petitions, orders in council, letters and telegrams in any department of the government of Canada, or that passed between the Department of Customs and the Department of Justice or any solicitor, counsel, association, company or individual, during the past twelve months, respecting the imposition of tariff duties upon imported lumber dressed on one side and sized, or respecting the interpretation of tariff item No. 504, together with a printed copy of any stated case, appeal, factum or argument used before the Exchequer Court of Canada or the Supreme Court of Canada, in the matter of the judicial interpretation of tariff item No. 504. Presented 4th June, 1913.—*Mr. Maclean (Halifax)*
Not printed.

126. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence passing between the government or any member thereof with respect to the east half of Section 27 in township six (6) in range two (2) west of the third meridian. Presented 17th February, 1913.—*Mr. Martin (Regina)*.....*Not printed.*

127. Return to an Order of the House of the 27th January, 1913, for a return showing when the militia or regular forces was first called out in Canada since Confederation in aid of the civil authorities, how often, when and where has the same been called out since, the amount of money paid by each municipal corporation for such service in each case, what corps called out on each occasion, whether to quell strikes in each instance or for what purpose. Presented 18th February, 1913.—*Mr. Macdonald.*
Not printed.

128. Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence, papers, &c., concerning the application by James McKelvey, of the town of Sarnia, Ontario, for Fenian Raid Volunteer Bounty. Presented 18th February, 1913.—*Mr. Macdonald*..... .....*Not printed.*

129. Return to an Order of the House of the 10th February, 1913, for a copy of all documents, correspondence, memorandums, reports, requests for inquiries, of the appointment of commissioners and other documents, relating to the study of the causes for the depopulation of country places and the high cost of living in the eastern provinces of the Dominion. Presented 18th February, 1913.—*Mr. Paquet*.....*Not printed.*

130. Return to an Order of the House of the 9th December, 1912, for a copy of all papers, documents, memoranda and correspondence relating to the application of the Banque Internationale to the Treasury Board for a certificate for the commencement of business. Presented 18th February, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

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131. Return to an Order of the House of the 4th December, 1912, for a copy of all papers, documents, telegrams, reports, letters, and instructions regarding smelt and salmon fishing in the Restigouche river and the Baie des Chaleurs since October, 1911, up to date, together with copy of instructions issued to officials of the Department of Marine and Fisheries in that connection. Presented 18th February, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

132. Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence and papers concerning the increase of salary of Mr. Sevigny, employed at the immigration office at Montreal. Presented 18th February, 1913.—*Mr. Carvell.* *Not printed.*

133. Return to an Order of the House of the 5th February, 1913, for a return showing whether any order for goods has been given by the Department of Public Works since 1st October, 1911, at Montreal, Quebec, St. John and Halifax; tenders asked for in each case; orders for goods given without tenders; names of firms, and amounts in each case. Presented 19th February, 1913.—*Mr. Macdonald*.....*Not printed.*

134. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence and other papers, in the Department of Public Works, concerning the awarding of a contract for a Welsh coal supply to the various Dominion public buildings in Montreal. Presented 19th February, 1913.—*Mr. Lemieux*....*Not printed.*

135. Return to an Order of the House of the 5th December, 1912, for a return showing how many dredging contracts were let by the Department of Public Works during the year 1911-12, the name of each tenderer and the amount of each tender. Presented 19th February, 1913.—*Mr. Lemieux*.....*Not printed.*

135*a*. Return to an Order of the House of the 4th December, 1912, for a return showing the quantity by cubic yards of dredging made in the harbour of Bathurst by the dredge *Restigouche* during the months of May, June, July, August, September, October, and November of the year 1911, and during the same months in the year 1912. Presented 19th February, 1913.—*Mr. Turgeon*.....*Not printed.*

135*b*. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, documents, recommendations and reports respecting the dredging Des Prairies river, the work done, depth, length and width of channel dredged, the list of men employed to perform that work, their salaries, and the amount of money spent on that work since the 1st of October, 1911, up to the 21st November, 1912. Presented 12th May, 1913.—*Mr. Wilson (Laval)*.....*Not printed.*

135*c*. Return to an Order of the House of the 3rd March, 1913, for a copy of all documents, letters, reports of engineers and a detailed statement of expenditure in connection with dredging at Ste. Anne de Restigouche and Cross Point, Bonaventure County. Presented 4th June, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

135*d*. Return to an Order of the House of the 19th March, 1913, for a return showing the amount of dredging done by the government dredges for private parties or firms in Prince Edward Island, during the season of 1912; the names of the parties or firms for whom this dredging was done; the number of yards of material dredged for each party or firm; the class of material dredged, and the price per yard the government charged for this dredging; who measured the material dredged, and whether it was scow measurement that was made; who recommended the said dredging to be done; if the resident engineer or any engineer was consulted in regard to the measuring, and if the resident engineer or any engineer had control over the matter at all. Presented 6th June, 1913.—*Mr. Hughes (Kings, P.E.I.)*.....*Not printed.*

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136. Return to an Order of the House of the 9th December, 1912, for a copy of the accounts of Jean Baptiste Lena and of his wife, for work done to the public buildings at Valleyfield, Quebec, in May, 1912; also for a copy of all correspondence, reports and documents relating to the payment in full or a part of their accounts. Presented 19th February, 1913.—*Mr. Papineau*.....*Not printed.*

137. Return to an Order of the House of the 4th December, 1912, for a return showing the amount of money expended in improving the channel of the Ottawa river between the city of Hull and the village of Masson. Presented 19th February, 1913.—*Mr. Devlin.* *Not printed.*

138. Return to an Order of the House of the 4th December, 1912, for a copy of all documents relating to the transferring of P. E. Amiot, resident engineer of the Department of Public Works, Bonaventure, Quebec, to the district of Chicoutimi and Saguenay, and the appointment in his stead, in Bonaventure County, of Charles E. Tache, of Chicoutimi, as resident engineer, with a copy of all the instructions given to the latter and his duties, residence and salary. Presented 19th February, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

139. Return to an Order of the House of the 4th December, 1912, for a copy of all petitions, correspondence, memoranda, reports, and resolutions of county or other municipal councils of Bonaventure County asking or objecting to certain public works in Bonaventure County since October, 1911, with the Minister of Public Works, or any member of the present administration, and replies made thereto. Presented 19th February, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

140. British Canadian Loan and Investment Company, Limited, Toronto, for year 1911.—*(Senate)*.....*Not printed.*

141. Claims of present fish warden, Baker Lake, County of Madawaska, N.B.—*(Senate).* *Not printed.*

141a. Return to an Order of the House of the 29th January, 1913, for a copy of all letters, telegrams, reports, information, convictions and other documents in the possession of the Department of Marine and Fisheries or any officer thereof relating to the prosecution in the year 1910, against George Rowlings and James Rowlings, of Musquodoboit Harbour, County of Halifax, for a violation of the fishery regulations. Presented 21st May, 1913.—*Mr. Sinclair*.....*Not printed.*

141b. Return to an Order of the House of the 29th January, 1913, for a copy of all papers, letters, telegrams and documents or other communications, had with the Department of Marine and Fisheries or any official thereof, in regard to the prosecutions against the following parties:—Samuel Stewart, Melvin Hart, Andrew McNeil, Thomas McNeil, Hugh Malcolm, Tom Moffatt, James Waddin, Samuel Wright and Dougald Higgins, of Westville, County of Pictou, for infractions of the Fisheries Act, and of any applications or letters relative to relief from the fines imposed or the return of the same; and also of all papers, letters, and other documents relating to a charge against Rod. Martin, of Westville aforesaid, a fishery guardian, for illegal fishing and other offences. Presented 21st May, 1913.—*Mr. Macdonald*.....*Not printed.*

141a. Claims of Messrs. Boulanger and Son, Montmagny, Quebec.—*(Senate)*....*Not printed.*

142. Copy of Report of Minister of Justice in *re* Florence Mining Company.—*(Senate).* *Not printed.*

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143. Instruction sent to the different Lieutenant Governors of different provinces of Canada, with commissions.—(*Senate*).....*Not printed.*

144. Return to an Order of the House of the 15th January, 1913, for a copy of all papers, letters, documents, telegrams, reports and opinions in relation to the claim of William Iceton, of Purcell's Cove for a return of a boat from the Department of Marine and Fisheries or any other department. Presented 20th February, 1913.—*Mr. Macdonald* .....*Not printed.*

145. Return to an Address to His Royal Highness the Governor General of the 9th December 1912, for a copy of all papers, telegrams, letters and orders in council respecting the transfer of the property known as the Police Point Reserve to the corporation of the City of Medicine Hat, Alberta. Presented 20th February, 1913.—*Mr. Buchanan.* *Not printed.*

146. Return to an Order of the House of the 29th January, 1913, for a copy of the inquiry made by F. B. Atkinson, Lévis, as to an accident that happened to the horse of Arsene Lauzier, at Amqui, County of Rimouski, on the 19th February, 1912. Presented 20th February, 1913.—*Mr. Boulay*.....*Not printed.*

147. Correspondence, memoranda, &c., in respect to the issue of a patent for the N. ½ of S. W. ¼ of section 8, in township 49, range 26, west of the 2nd meridian, to one Arthur Donaldson, bearing date the 19th November, 1912. Presented by Hon. Mr. Roche, 20th February, 1913.....*Not printed.*

147*a*. Return to an Order of the House of the 12th February, 1913, for a copy of all letters, telegrams and other documents with respect to the north half of the southwest quarter of section eight (8), township forty-nine (49), range twenty-six (26), west of the second meridian, province of Saskatchewan, and the granting of a homestead entry for the said land to one Arthur Donaldson. Presented 6th June, 1913.—*Mr. Martin (Regina)*.....*Not printed.*

148. Return to an Order of the House of the 12th February, 1913, for a copy of all papers, reports and other documents relating to the delay of the Indian Department in issuing patents for lands purchased from the St. Peters band of Indians, and forming part of the St. Peters Indian reserve, Manitoba. Presented 25th February, 1913. —*Mr. Oliver*.....*Not printed.*

149. Return an Address to His Royal Highness the Governor General of the 27th January, 1913, for a copy of all applications addressed to the Government by the Algoma Steel Company for remission of duties on rails imported by the said company at Fort William; of all correspondence on the same, of all evidence sought and obtained by the government and supplied by the company in support of its application; and of all orders in council ordering such remission of duties. Presented 25th February, 1913.—*Sir Wilfrid Laurier*.....*Not printed.*

150. Return to an Order of the House of the 24th February, 1913, for a return showing the stenographers and secretaries of the House of Commons, and the names of the members for whom each of them work. Presented 26th February, 1913.—*Mr. Boulay.* *Not printed.*

150*a*. Return to an Order of the House of the 31st March, ultimo, for a return giving the names and home addresses of the persons employed in the House of Commons as stenographers to members. Presented 1st April, 1913.—*Mr. Martin (Regina).* *Not printed.*

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151. Return to an Order of the House of the 16th January, 1913, for a return showing the number of bushels of grain and barrels or sacks of flour which were shipped from Montreal, Quebec, St. John, N.B., and Halifax, for twelve months preceding the 31st day of December, 1912; the kinds of each product respectively, and the quantities of said commodities at each of above points which were domestic and foreign. Presented 26th February, 1913.—*Mr. Bennett (Simcoe)*.....*Not printed.*

152. Return to an Order of the House of the 19th February, 1913, for a return showing in detail the quantity and values, respectively, of the imports and exports of Canada with Great Britain, United States, Australia and New Zealand, during the year ending 31st March, 1912, in horses, cattle, sheep, hogs, bacon, hams, fresh and salted beef, lard, tallow, mutton, canned meats, butter, cheese, eggs, poultry and apples. Presented 26th February, 1913.—*Mr. Sutherland*.....*Not printed.*

153. Return to an Address to His Royal Highness the Governor General of the 26th February, 1912, for a copy of all letters, documents and correspondence relating to action by the Government in regrd to the relief of the shareholders and depositors of the Farmer's Bank, and of the order in council appointing Sir William Meredith as Commisioner, and all correspondence in relation thereto. Presented 26th February, 1913. —*Mr. Macdonald*.....*Not printed.*

153*a*. Report of the Honourable Sir William Ralph Meredith, Kt., Commissioner appointed to make investigation into all matters connected with the Farmers Bank of Canada. Presented by Hon. Mr. White, 26th February, 1913.

Printed for distribution and sessional papers.

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153*b*. Report of Royal Commission authorized by orders in council dated 19th day of July, 1912, and the 5th day of August, 1912, to inquire into alleged complaints as to methods of weighing butter and cheese in Montreal, and also as to the methods of payment. Presented by Hon. Mr. Burrell, 30th May, 1913.

Printed for distribution and sessional papers.

154. Return to an Order of the House of the 27th January, 1912, for a return showing the amount of the subsidy paid to each of the four original provinces of the Dominion at Confederation, and the population on which such payment was based; the subsidy payable to each of the remaining five provinces on entering the union, and the population on which such payment was based; the sum added to the subsidy of any province as better terms, and the date which such addition was made respectively; the details of each readjustment of subsidies since 1867, and the yearly subsidy at present payable to each province, with the population on which such payment is based, and the original debt allowance, if any, respectively, placed to the credit of each province on entering the union. Presented 27th February, 1913.—*Mr. Sinclair.*

Printed for sessional papers only.

155. Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence in regard to the disposition of the Marine Hospital at Pictou to the town of Pictou, or any other corporation or person. Presented 27th February, 1913.—*Mr. Macdonald*.....*Not printed.*

156. Return to an Order of the House of the 29th January, 1913, for a copy of all letters, tenders, contracts, papers and other documents in the possession of the Department of Marine and Fisheries relating to the making and cancellation of a contract or agreement between the said department and one Charles G. Giffin, of Isaac Harbour,

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N.S., to perform certain services for the lobster hatchery at that place, and also relating to a subsequent agreement with one Philip McArthur to perform similar duties. Presented 27th February, 1913.—*Mr. Sinclair*.....*Not printed.*

157. Return to an Order of the House of the 29th January, 1913, for a copy of all papers and correspondence concerning the claim of Charles Mennier, ex-Collector of Customs at Marieville, Quebec, for rent. Presented 28th February, 1913.—*Mr. Lemieux.* *Not printed.*

158. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, correspondence, documents and reports relating to the closing of the post office at Pomket river, Antigonish County, Nova Scotia, and the cancellation of the contract for the carrying of the mail between Heatherton and Pomket river. Presented 28th February, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed.*

158a. Return to an Order of the House of the 27th January, 1913, for a copy of all letters, telegrams, petitions and other correspondence and documents received by the Post Office Department during the last twelve months from the honourable member for East Grey and others, relating to the closing of the post office at Harkaway, County of Grey, province of Ontario, and of the proposed change in the mail service. Presented 26th March, 1913.—*Mr. Lanctot*.....*Not printed.*

159. Claims put forth by and on behalf of Indians of British Columbia—Report of James T. McKenna on.—(*Senate*).....*Not printed.*

159a. Return to an Address to His Royal Highness the Governor General of the 20th January, 1913, for a copy of all correspondence between the Government of British Columbia and the Government of Canada concerning the rights and claims of the Indians in the province; and of all orders in council with regard to the same. Presented 14th May, 1913.—*Sir Wilfrid Laurier*.....*Not printed.*

159b. Return to an Order of the House of the 28th April, 1913, for a copy of all correspondence, reports and recommendations from Rev. R. L. Macdonald, Indian agent at Salmon River reserve, Richmond County, N.S., relating to the Indian school in said reserve; and of all correspondence and instructions from the Department of Indian Affairs to the said Indian agent, relating to the same; also a copy of all complaints, charges and reports against Miss Charlotte M. Devereaux, teacher of the said school, and of all correspondence and recommendations relating to the appointment of Earnest McNeil to succeed her, since 1st January, 1912. Presented 23rd May, 1913.—*Mr. Kyte*.....*Not printed.*

159c. Return to an Order of the House of the 12th May, 1913, for a copy of the last surrender and of all papers, correspondence and other documents in connection with the surrender of part of the White Bear Indian Reserve; together with a copy of all letters and telegrams referring to this surrender by officials of the Department or others, and of the authority on which this surrender was taken, the number of acres surrendered, and how disposed of. Presented 23rd May, 1913.—*Mr. Bradbury.* *Not printed.*

159d. Return to an Order of the House of the 30th April, 1913, for a copy of all letters, papers, memoranda and other documents, dated since 1st January, 1912, relating to the Kitsilano Indian Reserve in the City of Vancouver. Presented 23rd May, 1913.—*Mr. Oliver*.....*Not printed.*

160. Immigrants—number of, who settled in Canada, in 1911-12, and from whence.—(*Senate*). *Not printed.*

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160a. Return to an Order of the House of the 7th May, 1913, for a return showing the number of immigrants coming into Canada during the year ending 31st March, 1913, inspected by the government medical inspectors; the total cost of such medical inspections; the number of medical doctors employed by the government during that period; the name, salary and location of each, including those resident in Ottawa. Presented 6th June, 1913.—*Mr. Schaffner*.....*Not printed.*

161. Correspondence with Mr. V. Steffansson concerning northern expedition. Presented by Hon. Mr. Hazen, 3rd March, 1913.....*Not printed.*

161a. Copy of order in council No. P.C. 406 of the 22nd February, 1913, with reference to Mr. V. Steffansson's proposed northern expedition. Presented by Hon. Mr. Hazen, 10th March, 1913.....*Not printed.*

162. Return to an Address to His Royal Highness the Governor General of the 25th March, 1912, for a copy of all letters, requests, petitions, orders in council and other documents in the possession of the Department of Marine and Fisheries relating to the change in the fishery regulations by which steam trawlers were prohibited from participating in the fishing bounty. Presented 3rd March, 1913.—*Mr. Sinclair.* *Not printed.*

162a. Return to an Address to His Royal Highness the Governor General, of the 10th February, 1913, for a copy of all petitions, correspondence, reports of experts or officers, of orders in council, minutes of council, and of other papers and documents in the possession of the Department of Marine and Fisheries, or any department of the government, relating to steam trawling on the Atlantic seaboard. Presented 15th April, 1913.—*Mr. Sinclair*.....*Not printed.*

163. Return to an Order of the House of the 19th February, 1913, for a copy of all correspondence, papers, accounts, vouchers, concerning the purchase and subsequent repairs of a private car by the Department of Militia and Defence, from the Canadian Northern Railway Company. Presented 3rd March, 1913.—*Mr. Lemieux.* *Not printed.*

164. Return to an Order of the House of the 24th February, 1913, for a return showing separately the amount paid by the Department of Indian Affairs for medical attendance on account of the Indians on the Micmac reserve of Ste. Anne de Restigouche, Quebec, for each year from 1900 to 1913, inclusive, and to whom paid. Presented 10th March, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

165. Return to an Order of the House of the 19th February, 1913, for a copy of all correspondence, letters, telegrams and other documents relative to the sale of alleged Indian lands at Nyanza, riding of North Cape Breton and Victoria, N.S., to one Philip McDonald, such sale having taken place about the year 1877. Presented 17th March, 1913.—*Mr. McKenzie*.....*Not printed.*

165a. Return to an Order of the House of the 7th May, 1913, for a return showing the number of acres surrendered by the Coté's Band of Indians, the number of acres sold by private sale, the number of acres still unsold; together with a copy of all letters from persons who made application for purchase of surrendered lands in Coté's reserve, or from any person on behalf of purchasers and replies thereto; and of all reports, letters or memoranda addressed to the Superintendent General of Indian Affairs, from any officer of the department respecting the private sale of said lands; also a copy of any document or documents covering the authority under which these lands were sold by private sale, and of all letters addressed to the department, or any officer of department, respecting the sale of said lands. Presented 3rd June, 1913.—*Mr. Bradbury*.....*Not printed.*

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166. Return to an Order of the House of the 12th February, 1913, for a copy of all letters, reports and other documents received by the Minister of Labour regarding labour conditions on the Grand Trunk Pacific between Tête Jaune Cache and Fort George. Presented 17th March, 1913.—*Mr. Oliver*.....*Not printed.*

167. Return to an Address to His Royal Highness the Governor General of the 3rd February, 1913, for a copy of all telegrams, letters and other documents passing between the Government of Canada, or any member thereof, and the Government of the Province of Saskatchewan, or any member thereof, with respect to chapter 17 of the statutes of Saskatchewan, 1912, being an Act to prevent the employment of female labour in certain capacities. Presented 17th March, 1913.—*Mr. Martin (Regina)*.....*Not printed.*

168. Return to an Order of the House of the 10th December, 1912, for a copy of all correspondence, petitions and other papers received by the Prime Minister, or any member of the government, since the 1st April, 1912, in connection with the school system established in that portion of the Keewatin Territory annexed to the province of Manitoba. Presented 17th March, 1913.—*Mr. Macdonald*.....*Not printed.*

169. Return to an Order of the House of the 29th January, 1913, for a return showing the number of accidents to lock gates or bridges on the Welland Canal during the year ending 25th November, 1912, the nature of the accidents, the amount of damage in each case and the amount recovered by the Government from vessel owners in each instance. Presented 18th March, 1913.—*Mr. Graham*.....*Not printed.*

170 Return to an Order of the House of the 3rd March, 1913, for a copy of the contract passed on the 6th day of August, 1910, between the City of Quebec and the Transcontinental Railway Commissioners, for the acquisition by the latter of the property known as Champlain Market, to be used as a station and terminals for the said railway; of all the correspondence between the said city and the present Commissioner of the said railway, with the Minister of Railways, or any other Minister, with regard to the non-execution of the said contract by the said commission. Presented 18th March, 1913.—*Sir Wilfrid Laurier*.....*Printed for sessional papers only.*

171. Return to an Order of the House of the 29th of January, 1913, for a copy of all letters, correspondence, &c., respecting the request for suspension by H. Boulay, of J. Stahl, assistant inspector of immigration on the railway. Presented 19th March, 1913.—*Mr. Boulay*.....*Not printed.*

172. Return to an Order of the House of the 17th February, 1913, for a return showing the total area of land thrown open for pre-emption and purchased homesteads in each of the provinces of Saskatchewan and Alberta since the passing of the Dominion Lands Act of 1908; also the number of acres of such lands which have been disposed of by way of pre-emptions and purchased homesteads in each of the said provinces, the amount of principal money collected on account of such lands in each of the said provinces up to 31st December, 1912, and the amount of interest collected on account of such lands in each of the said provinces to 31st December, 1912. Presented 19th March, 1913.—*Mr. Martin (Regina)*.....*Not printed*

173. Return to an Order of the House of the 10th February, 1913, for a copy of all letters, correspondence, memorials and other documents received by the Right Honourable the Prime Minister and the Honourable the Minister of Justice, since the 1st day of January, 1912, relating to the request by county court judges for an increase of salary and for an amendment to the Judges Act with respect to retiring allowances. Presented 26th March, 1913.—*Mr. Proulx*.....*Not printed.*

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174. Return to an Order of the House of the 13th February, 1913, for a return showing the names of the keepers in Portsmouth penitentiary, and their religious belief; the names of any of the said keepers who may have been dismissed, the date, charges and on whose recommendation were they reinstated. Presented 26th March, 1913.—*Mr. Edwards*.....*Not printed.*

174a Return to an Order of the House of the 13th February, 1913, for the name of the discipline officer in charge of each of the following departments in Portsmouth penitentiary, the date when each was first appointed on the penitentiary staff, the date to his present position, and the religious belief of each: Quarry, farm, warden's residence and grounds, blacksmith shop, bath room and laundry, stone shed, tailor and shoe shop, changing room, stone pile, sewage plant, asylum ward, cell wings, library and Roman Catholic and Protestant chapels, hospital, shop dome, carpenter, tin and paint shop, and prison of isolation. Presented 26th March, 1913.—*Mr. Edwards.*
Not printed.

175. Return to an Order of the House of the 17th February, 1913, for a copy of all statements of account for salary or remuneration to the Commissioner, and his expenses, for witness fees and all other expenses in connection with the investigations by Commissioner Duchemin, of the following persons in Antigonish County namely: Patrick M. Decoste, deckhand SS. *Scotia*, Harbour au Boucher; William R. Fougère, sectionman, Harbour au Bouche; Allen Kinney, sectionman, Linwood; Hubert Myatte, sectionman, Tracadie; John McDonell, sectionman, Afton Station; John W. Malanson, sectionman, Afton; James Armstrong, sectionman, Heatherton; Charles Landry, sectionman, Pomket; William S. Landry, section foreman, Pomket; Colin McDonald, sectionman, James River; Archibald Chisholm, station agent, Heatherton; Joseph Benoit, station agent, Pomket; Alex. R. McAdam, fishery officer, Malignant Cove; Alex. McDonald, sub-collector, Doctors Brook; Charles L. Gass, sub-collector, Bayfield; Jeffrey M. Crispo, sub-collector, Harbour au Bouche; Hugh R. McAdam, postmaster, Arisaig; Thomas J. Sears, postmaster, Lochaber, Charles L. Gass, postmaster, Bayfield; and Joseph P. Benoit, postmaster, Pomquet; also the expenses in detail, of and incidental to the investigation by said Commissioner Duchemin of the charges made against John J. McDonald, postmaster, McArra's Brook; Archibald Stewart, section foreman, Harbour au Bouche; Ronald McFarlane, section foreman, Williams Point; Henry Williams, sectionman, Marshy Hope; and John W. McInnes, bridge foreman Intercolonial Railway, Antigonish. Presented 26th March, 1913.—*Mr. Chisholm (Antigonish)*.....*Not printed.*

175a. Return to an Order of the House of the 28th April, 1913, for a return showing the date of the appointment of H. P. Duchemin, Investigating Commissioner for Eastern Nova Scotia; the number of days he has been employed by the government since the appointment; the gross amount paid to Mr. Duchemin as an allowance for his services, excluding travelling expenses or other outlay; the amount which has been paid to Mr. Duchemin to date for travelling expenses, living expenses, witness fees, and other sundry expenses, respectively. Presented 21st May, 1913.—*Mr. Sinclair.*
Not printed.

176. Return to an Order of the House of the 4th December, 1912, for a copy of the report or reports made by C. E. Taché, resident engineer of Bonaventure County, Quebec, on public works existing or asked for in that constituency since October, 1911, up to date. Presented 28th March, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

177. Return to an Order of the House of the 6th February, 1913, for a return showing what properties within the area north of Wellington street and west of Bank street, in the City of Ottawa, have been purchased or acquired by the Government; from whom the said purchases were made, and the price paid, or agreed to be paid, in each case; the

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number of said properties not yet paid for, the names of the owners thereof, and amount, if any, in dispute in each case; the names of the persons who were employed in any capacity, or for any purpose, in connection with the purchase of the said properties, and the terms of their employment; the amount which has been paid to each, and further amounts to be paid to such persons, giving their respective names; whether the Government has employed any persons or agents to collect rent from the tenants or occupants of any of the said properties, if so, the names of such rent collectors, for what period employed, and amount by way of salary, fees, or commission, paid to each; the total amount paid by the Government up to 31st January, 1913, in connection with the purchase or acquisition of the said properties. Presented 28th March, 1913.—*Mr. Murphy* .....*Not printed.*

178. Return to an Order of the House of the 24th January, 1913, for a copy of all correspondence between the Minister of Public Works and H. Morel, M.P.P., for East Nipissing, in any way relating to the construction of a road or highway from North Bay to Sturgeon Falls, Ontario; and of all petitions, correspondence, surveys, and engineers' reports in any way connected with the building of the said road or highway. Presented 28th March, 1913.—*Mr. Murphy*.....*Not printed.*

179. Return to an Order of the House of the 4th December, 1912, for a copy of all pay-lists, letters, documents, telegrams and other papers in connection with the expenditures made on Brulé wharf in the County of Colchester during the last two years. Presented 28th March, 1913.—*Mr. Macdonald*.....*Not printed.*

179*a*. Return to an Order of the House of the 10th December, 1912, for a copy of all papers, documents, tenders and correspondence relating in any way to the construction of a wharf at Kraut Point, Lunenburg County, N.S. Presented 28th March, 1913.—*Mr. Maclean (Halifax)*..... .....*Not printed.*

180. Return to an Order of the House of the 29th January, 1913, for a copy of all correspondence, papers, &c., concerning the application made by the Eastern Canada Power Company, with a view to raise the head of the River St. Lawrence in the vicinity of Coteau, Cedar, Split Rock and Cascade rapids to the level of the water in Lake St. François. Presented 28th March, 1913.—*Mr. Lemieux*.....*Not printed.*

181. Return to an Order of the House of the 4th December, 1912, for a copy of all correspondence, letters and telegrams addressed by the Conservative candidate in the County of Gloucester at the election of 21st September, 1911, to the Minister of Public Works from the day he took his oath of office, on 10th October, 1911, up to the 31st December, of the same year, on the subject of public works then under construction in the said county. Presented 28th March, 1913.—*Mr. Turgeon*.....*Not printed.*

182. Return to an Order of the House of the 10th March, 1913, for a return showing the number of men of the R. C. regiment at Aldershot, during the summer of 1912, previous to the regular militia camp; date of going into camp; number there during said time; whether tenders for supplies for these men were called for; number of tenders received and from whom; if any contracts were awarded on said tenders and, if not, what was done with the said tenders; how and from whom were supplies for these men obtained; the prices paid during said time per pound respectively, for meat, sugar, butter, tea, coffee bacon, bread, and how much per bushel for vegetables; the cost per ration for supplies for said men of the R. C. regiment at Aldershot camp during the time aforesaid; the cost per ration for supplies to the regular militia camp under contract during the annual drill in the fall of 1912. Presented 28th March, 1913.—*Mr. Kyte*.....*Not printed.*

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183. Report on wholesale prices in Canada, 1912, by R. H. Coats, B.A., F.S.S., editor of the *Labour Gazette.* Presented by Hon. Mr. Crothers, 28th March, 1913....*Not printed.*

184. Area of territories added to Ontario and Quebec, by Statutes of 1912.—(*Senate*). *Not printed.*

185. Relating to recent increase in prices charged Canadian fishermen for manilla cord.—(*Senate*).....*Not printed.*

186. Report of the Pilotage Commission of Quebec. Presented by Hon. Mr. Hazen, 28th March, 1913.....*Not printed.*

187. Return to an Order of the House of the 26th February, 1913, for a copy of all memoranda, letters, papers, telegrams and other documents in the possession of the Department of the Interior relating to the S. W. 36-16-27, W. 2. Presented 31st March, 1913.—*Mr. Knowles*.....*Not printed.*

187*a*. Return to an Order of the House of the 3rd March, 1913, for a copy of all correspondence, telegrams and other papers in connection with the southwest ¼ of 4-9-14 west of 2nd meridian. Presented 10th April, 1913.—*Mr. Bradbury*.....*Not printed.*

187*b*. Return to an Order of the House of the 26th March, 1913, for a copy of all papers, letters, memoranda and other documents relating to the northwest of 30-25-7-2. Presented 25th April, 1913.—*Mr. Oliver*.....*Not printed.*

187*c*. Return to an Order of the House of the 3rd March, 1913,—1. For a copy of all correspondence and other papers in connection with the disposal of the following lands and the claim of James W. Brown in connection with these lands:—

Part of S.E. ¼ section 21-20-21-W. 2nd meridian, area 5/100ths acre.
Part of N.E. ¼ section 21-20-21-W. 2nd meridian, area 11 9/100ths acre
Part of S.E. ¼ section 20-20-21-W. 2nd meridian, area 80 acres.
Part of S.W. ¼ section 28-20-21-W. 2nd meridian, area 72 42/100ths acres.
Whole of S.E. ¼ section 28-20-21-W. 2nd meridian, area 160 acres.
Whole of N.E. ¼ section 32-20-21-W. 2nd meridian, area 160 acres.
Part of S.E. ¼ section 32-20-21-W. 2nd meridian, area 80 acres.
Whole of N.W. ¼ section 5-21-21-W. 2nd meridian, area 160 acres.
Whole of S.E. ¼ section 5-21-21-W. 2nd meridian, area 160 acres.
Part of N.E. ¼ section 5-21-21-W. 2nd meridian, area 123 85/100ths acres.
Whole of S.W. ¼ section 5-21-21-W. 2nd meridian, area 160 acres.

2. Also of all papers in connection with the disposal of the whole of the northwest quarter-section 22-20-21, west of the second meridian; and part of S.W. ¼, 2-20-21-W. of the second meridian; and of all correspondence and papers in connection with Alexander Hurst Brown's claim *re* these lands. Presented 30th April, 1913.—*Mr. Bradbury*.....*Not printed.*

187*d*. Return to an Order of the House of the 9th April, 1913, for a copy of all letters, papers, telegrams and other documents in connection with the sale of the N.W. quarter-section 29 10-18-W. Presented 13th May, 1913.—*Mr. Turriff*.....*Not printed.*

187*e*. Return to an Order of the House of the 28th April, 1913, for a copy of all letters, memoranda and other documents relating to the northeast quarter of 14-75-15-5, during the years 1911, 1912, and 1913 to date. Presented 13th May, 1913.—*Mr. Oliver.* *Not printed.*

CONTENTS OF VOLUME 28.—*Continued.*

187*f*. Return to an Order of the House of the 31st March, 1913, for a copy of all papers, telegrams, applications, and other documents in connection with the S.W. 2-19-20, west 2nd M. Homestead, patented 3rd June, 1892; the S. ½ of N.E. 20-20-21, west 2nd M. patented 11th October, 1904, N.W.H.B., as assignee of Edward Boucher; the S.E. ¼ of 22-20-21, west 2nd M., N.W.H.B., patented 22nd September, 1900, as assignee of Louis McGillies; the S.E. ¼ of 28-20 21, west 2nd M., N.W.H.B., patented 26th August, 1901, as assignee of J. Bte. Fagant, jr., and the E. ½ of S.E. ¼ of 32-20-21, west 2nd M., N.W.H.B., patented 11th September, 1901, as assignee of Jos. Alexander; and of all papers in connection with any claims of G. W. Brown or others in connection with these lands. Presented 3rd June, 1913.—*Mr. Bradbury*.....*Not printed.*

187*g*. Return to an Order of the House of the 31st March, 1913, for a copy of all papers, telegrams, applications and other documents regarding the S.W. ¼, 28-20-21, west 2nd M., N.W.H.B., patented 1st March, 1909, as assignee of Norbert Bellehumeur; and the W. ½ of S.E. ¼, 32, 20, 21, west 2nd M., N.W.H.B., patented 1st March, 1909, as assignee of Norbert Bellehumeur; and of all papers in connection with any claims by Norman McKenzie or others against the Government in connection with these lands. Presented 4th June, 1913.—*Mr. Bradbury*.....*Not printed.*

188. Return to an Order of the House of the 10th March, 1913, for a copy of all correspondence or communication of any kind between the Department of Insurance at Ottawa and the Department of Insurance at Toronto since June, 1907, touching the transfer of the Canadian Guardian Life Insurance Company from the jurisdiction of the Insurance Department at Ottawa to that of the jurisdiction of the Insurance Department at Toronto; of all correspondence, if any, between the Insurance Department at Ottawa and the *Saturday Night*, newspaper of Toronto, touching the affairs of the Canadian Guardian Life Insurance Company or the International Insurance Company, Limited; and of all correspondence and other communications between the Department of Insurance at Ottawa and the Government of the province of Alberta in reference to the affairs of the Canadian Guardian Life Insurance Company or the International Insurance Company, Limited. Presented 31st March, 1913.—*Mr. German.*
Not printed.

189. Copy of an Order in Council, &c., respecting a contribution of $30,000 to assist in alleviating the distress of the sufferers by the disastrous cyclone which swept over the City of Regina and its vicinity. Presented by Hon. Mr. White, 31st March, 1913.
Not printed.

190. Copy of correspondence respecting the Treaty of Commerce and Navigation between the United Kingdom and Japan. Presented by Hon. Mr. Borden, 1st April, 1913.
Printed for sessional papers only.

190*a*. From Imperial Consulate General of Japan for the Dominion of Canada. The undersigned, His Imperial Majesty's Consul General at Ottawa, duly authorized by His Government, has the honour to declare that the Imperial Japanese Government are fully prepared to maintain with equal effectiveness the limitation and control which they have since 1908 exercised in the regulation of emigration from Japan to Canada. 11th April, 1913. Presented by Hon. Mr. Borden, 11th April, 1913.....*Not printed.*

191. Copy of the order in council in connection with the appointment of a Commission to inquire into the claims of the province of British Columbia for exceptional treatment. Presented by Hon. Mr. Borden, 1st April, 1913.....*Printed for sessional papers only.*

191*a*. Memorandum *re* British Columbia's claims for special consideration. Presented by Hon. Mr. Borden, 1st April, 1913.....*Printed for sessional papers only.*

CONTENTS OF VOLUME 28.—*Continued.*

191b. Copies of orders in council, &c., relating to the appointment of commissioners to adjust all matters relating to Indian lands and Indian affairs generally in the province of British Columbia. Presented by Hon. Mr. Borden, 17th April, 1913.
Not printed.

191c. Report of the Royal Commission appointed to inquire into and report upon the law respecting pilotage and its administration in the pilotage districts of Montreal and Quebec; and what changes, if any, are desirable therein; and also, a letter addressed to the Minister of Marine and Fisheries from Mr. Ajutor Lachance, one of the commissioners. Presented by Hon. Mr. Hazen, 18th April, 1913.....*Not printed.*

191d. Report of Royal Commission on Industrial Training and Technical Education, Parts I, II, III. and IV. Presented by Hon. Mr. Crothers, 4th June, 1913.
Printed for distribution and sessional papers.

192. Return to an Order of the House of the 24th February, 1913, for a copy of all memoranda, letters, papers and documents relating to the setting apart of a forest reserve on the north side of the Saskatchewan river opposite the City of Prince Albert. Presented 2nd April, 1913.—*Mr. Oliver*.....*Not printed.*

192a. Return to an Order of the House of the 26th February, 1913, for a copy of all memoranda, reports, letters, and other documents of any kind in the possession of the Department of the Interior relating to the suitability for forest reserve or for homesteading purposes, of the whole or any part of townships 24 and 25, range 27, west of the first meridian, now forming part of the Riding Mountain Forest Reserve. Presented 11th April, 1913.—*Mr. Oliver*.....*Not printed.*

193. Return to an Order of the House of the 10th February, 1913, for a copy of all correspondence exchanged between the Department of Marine and Fisheries and the member for Temiscouata, and all other persons, respecting the placing of a light or line of lights on wharf at Ile Verte, County of Temiscouata. Presented 4th April, 1913.—*Mr. Paquet*.....*Not printed.*

194. Copy of a report of the Committee of the Privy Council, approved by His Excellency the Administrator, on the 5th April, 1913, relative to a contract for an ocean mail, passenger and freight steamship service between Canada and Great Britain and Great Britain and Canada, together with the articles of agreement for the said service. Presented by Hon. Mr. Pelletier, 7th April, 1913.....*Not printed.*

195. Return to an Order of the House of the 10th March, 1913, for a statement showing the total volume of trade, in import and export, respectively, between Canada and Newfoundland for each year during the period from the 1st day of January, 1896, to the 1st day of January, 1913, and of what the said trade consisted of each year.

2. The volume of trade between Newfoundland and the West Indian Islands, included in the West Indian trade agreement with Canada, dated the 9th day of April, 1912, during the years 1909, 1910, 1911 and 1912, in import and export, and of what the said import and export consisted of each year. Presented 10th April, 1913.—*Mr. McKenzie.*
Not printed.

195a. Supplementary return to an Order of the House of the 10th March, 1913, for a statement showing the total volume of trade, in import and export, respectively, between Canada and Newfoundland for each year during the period from the 1st day of January, 1896, to the 1st day of January, 1913, and of what the said trade consisted of each year.

CONTENTS OF VOLUME 28.—*Continued.*

2. The volume of trade between Newfoundland and the West Indian Islands, included in the West Indian trade agreement with Canada, dated the 9th day of April, 1912, during the years 1909, 1910 1911 and 1912, in import and export, and of what the said import and export consisted of each year. Presented 21st April, 1913.—*Mr. McKenzie* ..... *Not printed.*

196. Return to an Order of the House of the 9th December, 1912, for a copy of all letters, telegrams, and correspondence referring in any way to the purchase or leasing of the property in Antigonish, N.S., now in use as a gun shed or store house for the equipment of the 18th Field Battery of Artillery. Presented 14th April, 1913.—*Mr. Chisholm (Antigonish)* ..... *Not printed.*

197. Return to an Order of the House of the 19th March, 1913, for a copy of all tenders asking for the construction of a drill hall at Fernie, B.C., of all correspondence concerning the awarding of the contract, and of all correspondence and documents regarding said tender and contract. Presented 14th April, 1913.—*Sir Wilfrid Laurier.* *Not printed.*

197*a*. Supplementary return to an Order of the House of the 19th March, 1913, for a copy of all tenders asking for the construction of a drill hall at Fernie, B.C., of all correspondence concerning the awarding of the contract, and of all correspondence and documents regarding said tender and contract. Presented 6th June, 1913.—*Sir Wilfrid Laurier* ..... *Not printed.*

198. Return to an Order of the House of the 24th February, 1913, for a copy of all correspondence and documents between the government of Canada or any officer thereof, and one Miss Mastin, of England, relating to a presentation of certain chinaware and other curiosities, made to the Government by the said Miss Mastin, in memory of the defeat at the polls of the agreement relating to reciprocity with the United States. Presented 14th April, 1913.—*Mr. Sinclair* ..... *Not printed.*

199. Return to an Order of the House of the 19th March, 1913, for a return showing the names, professions or occupations, residences, the date of appointment, and the salary in each case, of all correspondents of the *Labour Gazette*, and also the number of changes made in that particular for the year 1912. Presented 22nd April, 1913.—*Mr. Verville* ..... *Not printed.*

200. Return to an Order of the House of the 26th March, 1913, for a return showing the amount of seed grain supplied to settlers in Peace River during the year 1912; the amount of seed grain being provided for settlers in Peace River during 1913; who distributed the seed grain supplied in 1912 and who is authorized to distribute seed grain in 1913; under what conditions seed grain was supplied during 1912, and those proposed for 1913; if provisions were supplied during 1912, what the conditions were and who gave out the supplies; if it is intended to supply provisions in 1913, what conditions will be given and who will give them out. Presented 25th April, 1913.—*Mr. Oliver* ..... *Not printed.*

201. Return to an Order of the House of the 7th April, 1913, for a copy of all documents in the Department of the Interior prior to the issue of the Crown patents relating to Lot No. 217 of the Hudson Bay Company Survey, in the parish of St. John, Winnipeg. Presented 25th April, 1913.—*Mr. Proulx* ..... *Not printed.*

202. Return to an Order of the House of the 31st March, 1913, for a copy of all correspondence claims and reports with reference to compensation claimed by owners of horses attached to the 10th Field Battery at Camp Petawawa in the summer of 1912, by rea-

CONTENTS OF VOLUME 28.—*Continued.*

son of damage or disease contracted while in the service; also of all such claims paid, the amounts in each case, and the persons to whom paid. Presented 25th April, 1913.—*Mr. Carvell*.....*Not printed*

203. Return to an Order of the House of the 11th December, 1912, for a copy of all papers, documents, pay-rolls, accounts, receipts, and correspondence in connection with all expenditures of money made in 1912 upon the Petite Rivière breakwater, Lunenburg County, Nova Scotia. Presented 29th April, 1913.—*Mr. Maclean (Halifax)*. *Not printed.*

203a. Return to an Address to His Royal Highness the Governor General of the 9th December, 1912, for a copy of all advertisements, tenders, contracts, orders in council, letters, correspondence, &c., relating to the construction of a wharf or breakwater at Seaforth, Halifax County, N.S. Presented 29th April, 1913.—*Mr. Maclean (Halifax)*. *Not printed.*

203b. Return to an Order of the House of the 20th March, 1912, for a copy of all documents, letters, correspondence, petitions, reports, &c., addressed to the Department of Public Works since the 21st September last on the subject of a wharf now under construction at St. Croix, in the County of Lotbinière, province of Quebec. Presented 29th April, 1913.—*Mr. Fortier*.....*Not printed.*

203c. Return to an Order of the House of the 19th March, 1913, for a return showing whether the repairs to Red Point wharf, Lot 48, Prince Edward Island, have been completed; if the work was done by tender or by day labour; if by tender, with whom the contract was made; if by day labour, the number of superintendents, inspectors, or overseers employed, their names, the number of days each did work, and the wages per day paid to each; the number of men employed, their names, the number of days each did work and the wages per day paid to each; who supplied the materials; the amount of each kind or class used, and the price paid for each kind or class; the total amount paid for materials, wages and cost of the work. Presented 2nd May, 1913.—*Mr. Hughes (Kings, P.E.I.)*.....*Not printed.*

203d. Return to an Order of the House of the 31st March, 1913, for a copy of all documents, papers, correspondence, representations, &c., relating to the purchase of land at Digby, Nova Scotia, for the purpose of a site for a public wharf. Presented 2nd May, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

203e. Return to an Order of the House of the 19th March, 1913, for a return showing whether the repairs to Southport wharf, Lot 48, Prince Edward Island, have been completed; if the work was done by tender or by day labour; if by tender, with whom the contract was made; if by day labour, the number of superintendents, inspectors, or overseers employed, their names, the number of days each did work, and wages per day paid to each; the number of men employed, their names, the number of days each did work and the wages per day paid to each; who supplied the materials; the amount of each kind or class used and the price paid for each kind or class; the total amount paid for materials, wages and cost of the work. Presented 2nd May, 1913.—*Mr. Hughes (Kings, P.E.I.)*.....*Not printed.*

203f. Return to an Order of the House of the 11th December, 1912, for a copy of all accounts, correspondence, telegrams, complaints and other documents in possession of the Department of Public Works, in relation to the expenditure of moneys on harbour improvements at Grand Etang, during the year 1911-12. Presented 13th May, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed.*

CONTENTS OF VOLUME 28.—*Continued.*

203*g*. Return to an Order of the House of the 7th April, 1913, for a copy of all documents, correspondence, &c., relating to the purchase by the Department of Public Works of a certain quantity of timber for the construction of a wharf at St. Germain de Kamouraska, the said purchase having been made, as alleged, from Murray Castonguay during the year 1912. Presented 26th May, 1913.—*Mr. Lapointe (Kamouraska).* *Not printed.*

203*h*. Return to an Order of the House of the 29th January, 1913, for a copy of all letters written to the Honourable Minister of Public Works, or to any officer of the Public Works Department, or to any member of the government since 19th October, 1911, by G. A. R. Rowlings, John S. Wells and S. R. Griffin, relating to the construction of public works, County of Guysborough, N.S., also a copy of the replies to the same. Presented 29th May, 1913.—*Mr. Sinclair*.....*Not printed.*

203*i*. Return to an Order of the House of the 7th May, 1913, for a copy of all correspondence exchanged between the Postmaster General and M. Isidore Belleau, of Quebec, in connection with improvements contemplated in Quebec harbour. Presented 2nd June, 1913.—*Mr. Carvell*.....*Not printed.*

203*j*. Return to an Order of the House of the 28th April, 1913, for a copy of all papers, documents, pay-rolls, receipts, accounts, correspondence, &c., relating to repairs made upon the breakwater at Petite Rivière, Lunenburg County, N.S., in the year 1912. Presented 6th June, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

204. Return to an Order of the House of the 4th March, 1912.—1. For a copy of all reports of engineers from 1874 to 1900, relating to the most suitable site in the harbour of Quebec for the construction of a dry dock.

2. Of all correspondence exchanged on the subject of a choice of a site for the dry dock now existing at St. Joseph de Lévis, at the time of its construction.

3. Of engineers reports, plans, maps and bearings relating to the construction of a new dry dock in the port of Quebec since 1900.

4. Of all correspondence exchanged between the different companies and the government relating to the construction of a new dry dock in the port of Quebec, since 1909.

5. Also for the production of all documents submitted by the different companies who have asked for the government grant provided by the Dry Dock Subsidies Act. Presented 29th April, 1913.—*Mr. Béland*.....*Not printed.*

204*a*. Dry dock of Lévis. Report of Mr. Charles Smith against Sampson, et al.—(*Senate*). *Not printed.*

204*b*. Return to an Address to His Royal Highness the Governor General of the 19th March, 1913, for a copy of all orders in council, plans and estimates, correspondence, papers and inquiries respecting the construction of a dry dock at Quebec or Lévis or in the port or harbour of Quebec. Presented 6th June, 1913.—*Mr. Lachance*....*Not printed.*

205. Return to an Order of the House of the 9th April, 1913, for a copy of the petition of the Restigouche Fishermen's Association to the Minister of Marine and Fisheries asking for the removal of Mr. M. M. Mowat, head guardian of the Restigouche Riparian Association as Dominion fishery officer, and the answer thereto. Presented 2nd May, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

206. Return to an Order of the House of the 13th February, 1913, for a return showing the name of the company who has the contract for the electric lighting of the government buildings and grounds in Ottawa, date of contract and period, on what notice can contract be cancelled, price paid per kilowatt hour for electric lighting, names of

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buildings lighted, cost of lighting each per year, rate for electric lighting if a combined power and light rate, price for current for power purposes, if lamps are not free, price paid for the carbon and tungsten lamps renewed, are lamps marked so as to be identified as belonging to the government buildings, number of electric lamp renewals paid for during the last fiscal year, where required, number of carbon and tungsten lamps respectively in use in the several buildings and the candle power or wattage of the same. Presented 2nd May, 1913.—*Mr. Wilson (Wentworth)*
Not printed.

207. Return to an Order of the House of the 17th February, 1913, for a copy of all correspondence, letters, telegrams, petitions, memoranda, reports, tenders, deposits, recommendations and all other documents of any nature whatsoever bearing on or having relation to the erection of a public building in the city of Three Rivers, P.Q., since the 11th day of October, 1911, to date. Presented 2nd May, 1913.—*Mr. Bureau.*
Not printed.

207*a*. Return to an Order of the House of the 26th May, 1913, for a copy of all papers, letters, and documents relating to the construction of a public building in the town of Laurentides, County of L'Assomption. Presented 4th June, 1913.—*Mr. Seguin.*
Not printed.

207*b*. Return to an Order of the House of the 2nd April, 1913, for a copy of all correspondence, letters, telegrams, contracts, tenders and reports of government inspector, in relation to the work and repairs on the public building at North Sydney during the year 1912, and particularly the inspector's report on the damages caused by fire during the construction of said works and repairs; and also a copy of the tenders of Henry Lovell, for the above work. Presented 6th June, 1913.—*Mr. McKenzie.*
Not printed.

207*c*. Return to an Order of the House of the 27th January, 1913, for a copy of all telegrams, letters, documents and plans relative to the purchase or acquirement of land for the purpose of erecting a public building in Stellarton, Nova Scotia, in the year 1912. Presented 6th June, 1913.—*Mr. Macdonald*.....*Not printed.*

208. Return to an Order of the House of the 24th February, 1913, for a return showing the names of the buildings occupied by the Government as public offices, which are under rent, excepting the Centre, East, West and Langevin Blocks; the street on which each of these offices is situated and the number of the street in each case. Presented 2nd May, 1913.—*Mr. Boulay*.....*Not printed.*

209. Return to an Order of the House of the 11th December, 1912, for a copy of all accounts, correspondence, telegrams, complaints and other documents in possession of the Department of Public Works, relating to the construction of telegraph lines during the year 1911-12, from South West Margaree to Scotsville, from Scotsville to North Ainslee; from Scotsville to South Lake Ainslee and Whycocomagh; from Little Narrows to Whycocomagh; from Rossville to Big Intervale and from Rossville to the Victoria County Boundary Line, all in the County of Inverness. Presented 2nd May, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed.*

210. Correspondence in connection with the area or areas prescribed for mange in British Columbia.—(*Senate*).... ....*Not printed.*

211. Report made by the Central Railway of Canada to the Railway Department.—(*Senate*).
Not printed.

CONTENTS OF VOLUME 28.—*Continued.*

212. Return to an Address to His Royal Highness the Governor General of the 10th February, 19.3, for a copy of all orders in council, letters, telegrams and of all other official documents of any kind in the possession of the Department of Customs, relating to the seizures of twenty horses from John Gobel, for smuggling them across the United States boundary near Coutts, or Writing-on-Stone, between the 20th and 28th of February, 1911. Presented 5th May, 1913.—*Mr. MacNutt*.....*Not printed.*

213. Return to an Address to His Royal Highness the Governor General of the 10th February, 1913, for a copy of all orders in council, letters, telegrams and of all other official documents of any kind in the possession of the Department of the Interior, relating to sale of school lands which have been held in the provinces of Alberta and Saskatchewan since the 12th day of October, 1911. Presented 7th May, 1913.—*Mr. McCraney*.....*Not printed.*

213*a*. Return to an Order of the House of the 2nd April, 1913, for a return showing by quarter-section, or fraction of quarter-section, all school lands sold in Manitoba, Saskatchewan and Alberta during the calendar year 1912; the price per acre at which each separate parcel was sold; the name and address of each purchaser; a list of all school lands sold at above sales which have since been cancelled; the price at which each parcel of said cancelled lands were sold, with the names and addresses of purchasers of each parcel of said lands sold and subsequently cancelled. Presented 23rd May, 1913.—*Mr. Turriff*.....*Not printed.*

213*b*. Return to an Order of the House of the 12th February, 1913, for a return showing all school lands sold in the province of Saskatchewan in 1912, giving each parcel of land sold, the name and address of each purchaser, the date and place of sale, the name of the auctioneer at each sale, and any assignments of contracts of purchase of which the government has notice, and a copy of all correspondence passing between the Government, or any member thereof, and the Government of the province of Saskatchewan or any member thereof, with respect to the sale of school lands in the said province. Presented 6th June, 1913.—*Mr. Martin (Regina)*.....*Not printed.*

214. Return to an Order of the House of the 9th April, 1913, for a copy of all petitions, affidavits, specifications, plans, drawings, claims, certificates, papers and patent rights in the Department of Agriculture or the Patents Branch thereof, with respect to Patent Number 142823. Presented 7th May, 1913.—*Mr. Carvell*.....*Not printed.*

215. Return to an Order of the House of the 28th April, 1913, for a copy of all memorials, petitions, and letters, addressed to or sent by the Minister of Agriculture, or on his behalf, in connection with the establishment of an agricultural school, model farm or demonstration station at New Carlisle, Quebec. Presented 9th May, 1913.—*Mr. Marcil (Bonaventure)*.....*Not printed.*

216. Return to an Order of the House of the 28th April, 1913, for a copy of all telegrams, correspondence, returns, &c., between the Department of Agriculture, and any other person or persons, requesting recently that the Veterinary Director General of Canada visit Nova Scotia. Presented 9th May, 1913.—*Mr. Maclean (Halifax)*.
Not printed.

217. Extent to which the Franking privilege is used by the several provinces in Canada for statistics.—*(Senate)*.....*Not printed.*

218. Return to an Order of the House of the 29th January, 1913, for a copy of all diaries and other documents relating to and showing the work performed during the months of June and July, 1912, by Homestead Inspectors Rathwell and Erratt in the Moosejaw land district. Presented 16th May, 1913.—*Mr. Knowles*.....*Not printed.*

CONTENTS OF VOLUME 28.—*Continued.*

218a. Return to an Order of the House of the 29th January, 1913, for a copy of all diaries relating to and showing the work performed during the months of June and July, 1912, by Homestead Inspectors Brandt, Balfour, Ouelette and Sipes, in the Regina land district. Presented 16th May, 1913.—*Mr. Martin (Regina)*.....*Not printed.*

218b. Return to an Order of the House of the 29th January, 1913, for a return showing the expenses of Homestead Inspectors Brandt, Balfour, Ouelette and Sipes during the months of June and July, 1912. Presented 16th May, 1913.—*Mr. Martin (Regina).* *Not printed.*

218c. Return to an Order of the House of the 29th January, 1913, for a return showing the expenses of Homestead Inspector Miller of the Moosejaw land district during the months of June and July, 1912, together with a copy of all reports, proceedings, diaries and other documents, showing the work performed during the said time by the said homestead inspector. Presented 16th May, 1913.—*Mr. Knowles*.....*Not printed.*

218d. Return to an Order of the House of the 29th January, 1913, for a copy of all diaries and other documents relating to and showing the work performed during the months of June and July, 1912, by Homestead Inspectors Shields and McLaren, in the Swift Current lands district. Presented 23rd May, 1913.—*Mr. Knowles*.....*Not printed.*

218e. Return to an Order of the House of the 29th January, 1913, for a return showing the expenses of Homestead Inspectors Shields, McLaren, Erratt and Rathwell, during the months of June and July of 1912. Presented 26th May, 1913.—*Mr. Knowles.* *Not printed.*

219. Return to an Order of the House of the 26th March, 1913, for a copy of all papers, memoranda, and instructions relating to a certain area of land on the bank of Little Manitou Lake, Saskatchewan, recently transferred to the town of Waterous, for park purposes. Presented 16th May, 1913.—*Mr. Oliver*.....*Not printed.*

220. Return to an Order of the House, of the 4th December, 1912, for a copy of all correspondence and other documents in the possession of the Department of Public Works relating to the proposed interprovincial bridge between Hawkesbury, Ontario, and Grenville, Quebec. Presented 26th May, 1913.—*Mr. Proulx*.....*Not printed.*

221. Return to an Order of the House of the 1st April, 1913, for a copy of all complaints, charges, evidence and reports in connection with the investigation held at Aldershot, N.S., in September, 1912, relating to the alleged thefts of property from the militia camp. Presented 26th May, 1913.—*Mr. Kyte*.....*Not printed.*

221a. Return to an Order of the House of the 21st April, 1913, for a copy of all notices, tenders, contracts and correspondence relating to the supplying of ice for the military comp at Aldershot, N.S., for 1913, and of all correspondence relating to the source of such ice supply. Presented 26th May, 1913.—*Mr. Kyte*.....*Not printed.*

222. Return to an Order of the House of the 17th February, 1913, for a copy of all letters, proposals, tenders, memoranda, papers and documents in the possession of the Department of Trade and Commerce, or any department of the Government, bearing date since 1st December, 1912, relating to steamship service between Canada and the West Indies. Presented 27th May, 1913.—*Mr. Maclean (Halifax)*.....*Not printed.*

222a. Return to an Order of the House of the 2nd April, 1913, for a copy of all correspondence, petitions, letters, telegrams, and other documents in the Department of Trade and Commerce, or any department of the Government, relating to the SS. service,

CONTENTS OF VOLUME 28.—*Continued.*

between Mulgrave, County of Guysborough and Cheticamp, Inverness County, during the years 1910-11, 1911-12, and 1912-13, and the service to be continued during the year 1913-14. Presented 27th May, 1913.—*Mr. Chisholm (Inverness)*.....*Not printed.*

223. Return to an Order of the Senate calling upon the Clerk of the House to furnish a statement showing the number of Bills passed by the House of Commons since Confederation, which have been:—1. Amended by the Senate. 2. Rejected by the Senate. 3. Amended by the Senate and accepted by the Commons.—(*Senate*).....*Not printed.*

224. Return to an Order of the House of the 14th May, 1913, showing whether a contract was passed by the Post Office Department in the year 1911, for the use of stamp vending machines, the terms of said contract, the date, and by whom signed. Presented 2nd June, 1913.—*Mr. Lemieux*.....*Not printed.*

225. Ordinances of the Yukon Territory, passed by the Yukon Council in the year 1913. Presented by Hon. Mr. Coderre, 2nd June, 1913.....*Not printed.*

226. Names of judges of Superior and Circuit Court in province of Quebec, date of appointment, &c.—(*Senate*)..... .....*Not printed.*

227. Return to an Order of the House of the 19th May, 1913, for a return showing the per capita taxation for the year ending 31st March, 1913, and for each of the twelve preceding years. Presented 3rd June, 1913—*Mr. Hughes (Kings, P.E.I.)*....*Not printed.*

228. Return to an Order of the House of the 29th May, 1913, for a return showing whether a certificate has been issued by the Treasury Board authorizing the transfer of the assets and liabilities of La Banque Internationale du Canada to the Home Bank; the terms of the said transfer, and all documents bearing on this question. Presented 3rd June, 1913.—*Mr. Lemieux*..... .....*Not printed.*

229. Report of the Canadian delegates to the International Conference, held at New York for the consideration of the Commemoration of the First Century of Peace between the United States and the British Empire. Presented by Hon. Mr. Borden, 5th June, 1913..... ....*Not printed.*

230. Return to an Address to His Royal Highness the Governor General of the 10th March, 1913, for a copy of all correspondence, memoranda, orders in council, departmental orders and reports from fishery overseers or other officers, during the past two years, relating to weir licenses in the waters of the Counties of Charlotte and St. John, Province of New Brunswick. Presented 6th June, 1913.—*Mr. Pugsley*.....*Not printed.*

231. Return to an Order of the House of the 24th February, 1913, for a copy of all letters and papers relating to the issue of half-breed scrip, warrant No. 2155, certificate No. 672, to Albert St. Denis, and the disposition of the said scrip. Presented 6th June, 1913.—*Mr. Oliver*..... .....*Not printed.*

232. Return to an Address to His Royal Highness the Governor General of the 3rd February, 1913, for a copy of all papers in connection with the withdrawal from settlement of a strip of land one mile in width along the line of the Hudson Bay Railway, and of the order in council, and also of all plans and correspondence in connection with the same, prior and subsequent thereto. Presented 6th June, 1913.—*Mr. Graham.* *Not printed.*

233. A return to an Order of the Senate dated 7th March, 1913, for a copy of all papers, letters, petitions, contracts and other papers relating in any way to the purchase of land at Le Pas for terminus of Hudson Bay road.—(*Senate*).....*Not printed.*

REPORTS, RETURNS AND STATISTICS

OF THE

INLAND REVENUES

OF THE

DOMINION OF CANADA

FOR THE YEAR ENDED MARCH 31

1912

PART I - EXCISE

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST
EXCELLENT MAJESTY
1912

[No. 12—1913]

To His Royal Highness, Field Marshal, Prince Arthur William Patrick Albert, Duke of Connaught and Strathearn, K.G., K.T., &c., &c., &c., Governor General and Commander-in-Chief of the Dominion of Canada.

MAY IT PLEASE YOUR ROYAL HIGHNESS:

I have the honour to transmit to Your Excellency the RETURNS AND STATISTICS of Inland Revenue of the Dominion of Canada, for the year ended March 31, 1912, as prepared and laid before me by the Deputy Minister of Inland Revenue.

All of which is respectfully submitted.

W. B. NANTEL,
Minister of Inland Revenue.

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REPORT

OF THE

DEPUTY MINISTER OF INLAND REVENUE

To the Hon. W. B. NANTEL,
Minister of Inland Revenue.

SIR,—Herewith I have the honour to submit statements of the Inland Revenues collected by this department during the Fiscal year ended March 31, 1912, with the usual information as to the cost of collection, and statistics respecting the sources whence these revenues were derived.

The following summary comparison shows the accrued revenue for the Fiscal Years ended March 31, 1908, 1909, 1910, 1911 and 1912.

——	1908.	1909.	1910.	1911.	1912.
	$	$	$	$	$
Excise	16,013,662	15,084,589	15,283,665	16,919,553	19,306,069
Ferry Licenses	4,802	4,436	553	474	1,024
Weights and Measures, Gas and Law Stamps	137,207	136,128	156,460	151,229	163,958
Electric Light	42,520	43,846	46,316	59,583	66,060
Other Revenues	941	4,552	4,571	20,837	5,669
Methylated Spirits	54,509	49,960	71,464	90,999	93,083
Totals	16,253,641	15,323,511	15,563,029	17,242,675	19,635,863

DETAILS of Excise Revenue accrued during the undermentioned Fiscal Years :—

	1	2	3	4	5
	1908	1909	1910	1911	1912
	$	$	$	$	$
Spirits	7,537,979	6,950,589	7,169,760	7,913,376	8,667,666
Malt Liquor	11,470	17,628	27,314	52,893	86,756
Malt	1,485,386	1,396,007	1,434,004	1,529,472	1,716,547
Tobacco	5,656,880	5,964,005	6,067,599	6,784,140	8,130,776
Cigars	1,184,180	626,059	432,539	470,197	517,646
Acetic Acid	3,314	3,841	6,037	10,242	11,300
Manufactures in bond	66,544	71,669	77,811	77,846	84,720
Seizures	3,476	3,948	3,051	5,605	2,319
Other receipts	64,433	50,843	65,549	75,789	90,659
Methylated spirits	54,509	49,960	71,464	90,999	93,083
Totals	16,068,171	15,134,549	15,355,128	17,010,553	19,401,472

The quantity of spirits produced during the Fiscal Year was 4,784,396 proof gallons, as compared with 5,255,133, proof gallons produced in the previous Fiscal Year. The raw material taken for use, in the production of spirits, during the Fiscal Year was as follows :—

	Lbs.
Malt	5,676,504
Indian corn	52,403,560
Rye	9,474,631
Wheat	2,851,840
Oats	501,435
Barley	
Rice	
Molasses	8,682,660

The transactions of the several distilleries will be found stated in detail in Appendix A (Statement No. 3), pages 64 and 65.

		Proof galls.
There was on April 1, 1911, in process of manufacture		365,443
Manufactured during the Fiscal Year		4,784,396
Returned to distilleries for re-distillation—Duty paid		
" " " In bond	605,416	
		605,416
Received into distilleries from other sources—Duty paid		9,681
" " " In bond		
Total		5,764,936

This was disposed of as follows :

	Proof Galls.
Placed in warehouse	5,412,398
Fusel oil written off	16,908
Deficiency arising from rectification	9,270
Remaining in process of manufacture March 31, 1912, by actual stock taking	326,360
Written off	
Total	5,764,936

SPIRITS :—

The following statement shows the warehousing transactions in spirits during the Fiscal Year ended March 31, 1912, and the four preceding Fiscal Years.

Fiscal Years	1	2	3	4	5	6	7	8	9
	In Warehouse at beginning of year. Including transits.	Warehoused during the year. Ex-distillery.	Otherwise Warehoused.	Taken for consumption.	Exported.	Used in Bonded Factories.	Otherwise accounted for.	For re-distillation.	In Warehouse at end of year, including transits.
	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.
1907–1908...	18,213,551	8,186,765	325,015	3,918,657	412,859	638,539	245,971	1,433,533	20,075,772
1908–1909...	20,075,772	6,357,351	110,103	3,627,266	311,314	419,555	249,065	1,082,806	20,853,219
1909–1910...	20,853,219	6,807,443	64	3,777,156	361,934	557,401	330,043	1,168,519	21,465,673
1910–1911...	21,465,673	6,015,018	151,628	4,146,452	273,963	455,598	413,562	781,819	21,560,925
Totals.....	80,608,215	27,366,577	586,810	15,469,531	1,360,070	2,071,093	1,238,642	4,466,677	83,955,589
Average....	20,152,054	6,841,644	146,702	3,867,383	340,017	517,773	309,661	1,116,669	20,988,897
1911–1912...	21,560,925	5,412,398	29,394	4,562,382	298,769	347,714	519,681	604,837	20,669,334

The foreign demand for Canadian distillery products is slightly less than the average of the last four years, the quantities exported being as follows :

	Proof Galls.
1907–1908	412,859
1908–1909	311,314
1909–1910	361,934
1910–1911	273,963
1911–1912	298,769

The following statement shows the entire quantities of spirits upon which duties were collected during the several Fiscal years recited therein. To accord with the figures shown in Financial Statement No. 12, pages 20 and 21 :—

Fiscal Years.	Canadian Spirits.		Imported Spirits used in Bonded Factories.	Total quantities upon which duty was collected.	Memorandum of Revenue accrued, including License Fees.
	Paid duty Ex-distillery.	Paid duty Ex-warehouse.			
	Pf. Gallons.	Pf. Gallons.	Pf. Gallons.	Pf. Gallons.	$
1907-1908	8,655	3,918,657	325,015	4,252,327	7,537,979
1908-1909	19,201	3,627,266	109,885	3,756,352	6,950,589
1909-1910	5,280	3,777,156	.....	3,782,436	7,169,760
1910-1911	7,058	4,146,452	151,387	4,304,897	7,913,376
Totals	40,194	15,469,531	586,287	16,096,012	29,571,704
Average	10,048	3,867,383	146,572	4,024,003	7,392,926
1911-1912	9,317	4,534,785	27,597	4,571,699	8,667,666

MALT:

The following statement shows the transactions in Malt during the Fiscal Year ended March 31, 1912, and the four preceding Fiscal Years :—

Fiscal Year.	1	2	3	3	5	6	7	8	9
	In Warehouse at beginning of year, including transit.	Manufactured during the year.	Imported.	Increase by absorption.	Taken for consumption.	Exported.	Otherwise accounted for.	In Warehouse at end of year including transits.	Memorandum of Revenue accrued, including License Fees.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1907-1908	42,128,515	99,577,820	472,433	743,595	98,579,733	355,200	2,472,181	41,516,249	1,485,386
1908-1909	41,516,249	95,453,648	1,220,392	618,625	92,631,306	378,200	3,276,370	42,522,038	1,396,007
1909-1910	42,522,038	90,559,046	2,237,528	930,207	95,166,134	425,600	3,663,645	36,993,440	1,434,004
1910-1911	36,993,440	100,086,332	3,073,837	839,035	101,525,430	551,500	2,526,384	36,389,330	1,529,472
Totals	163,160,242	385,676,846	7,004,190	3,131,462	387,902,603	1,710,500	11,938,580	157,421,057	5,844,869
Average	40,790,060	96,419,212	1,751,047	782,866	96,975,651	427,625	2,984,645	39,355,264	1,461,217
1911-1912	36,389,330	115,793,326	613,382	810,372	114,029,523	294,800	2,647,187	36,634,900	1,716,547

TOBACCO:

The following statement shows the transactions during the Fiscal Year ended March 31, 1912, and the four preceding Fiscal Years, respectively, in Tobacco, Snuff and Cigarettes.

Fiscal Year.	1	2	3	4	5	6	7	8	9	10	11
	In Warehouse at beginning of year, including transits.	Manufactured during the year.	Taken for consumption.	Exported.	Otherwise accounted for.	In Warehouse at end of year, including transits.	Raw Leaf taken for consumption.	Canadian Twist taken for consumption.	Total Tobacco taken for consumption.	Other Materials taken for consumption	Duty collected thereon including License Fees.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	$
1907-1908	1,633,107	17,238,977	17,112,591	141,165	23,110	1,594,918	14,962,407	13,447	32,088,445	.....	5,656,880
1908-1909	1,594,918	17,978,589	18,268,135	102,963	32,084	1,170,325	13,530,827	19,844	31,818,806	1,073,732	5,964,005
1909-1910	1,170,325	19,462,170	19,293,891	29,250	50,421	1,258,933	13,729,875	20,673	33,044,439	1,269,027	6,067,599
1910-1911	1,258,933	20,355,883	20,641,947	37,071	8,110	927,688	15,012,704	19,181	35,673,832	1,123,383	6,784,140
Totals	5,657,283	75,035,619	75,316,564	310,749	113,725	4,951,864	57,235,813	73,145	132,625,522	3,466,142	24,472,624
Average	1,414,321	18,758,905	18,829,141	77,687	28,432	1,237,966	14,308,953	18,286	33,156,380	866,536	6,118,156
1911-1912	927,688	23,557,145	23,749,939	5,790	10,338	718,766	17,491,373	17,098	41,258,410	1,372,144	8,130,776

CIGARS:

The following statement shows the transactions in Cigars during the Fiscal Year ended March 31, 1912, and the four preceding Fiscal Years.

Fiscal Years.	1	2	3	4	5	6	7	8
	In Warehouse at beginning of year, including transits.	Manufactured during the year.	Assessment to bring production up to Standard.	Taken for consumption.	Exported.	Otherwise accounted for.	In Warehouse at end of year, including transits.	Duty collected thereon, including License Fees.
	No.	No.	No.	No.	No.	No.	No.	$
1907-1908	25,822,450	207,291,596	53,319	206,133,255	29,400	12,875	32,991,835	1,184,180
1908-1909	32,991,835	186,419,145	7,681	192,105,371	.....	41,450	27,271,840	626,059
1909-1910	27,271,840	204,285,596	36,795	205,820,851	19,000	.....	25,754,380	432,539
1910-1911	25,754,380	227,498,932	10,295	227,585,692	17,000	.....	25,666,915	470,197
Totals	111,840,505	825,495,269	108,090	825,645,169	65,400	54,325	111,678,970	2,712,975
Average	27,960,126	206,373,817	27,023	206,411,292	16,350	13,581	27,919,743	678,244
1911-1912	25,660,915	248,906,934	128,468	252,718,242	15,000	22,625	21,940,450	517,646

The revenue derived from goods manufactured in bond during the Fiscal Year ended March 31, 1912, and the four preceding Years, was as follows :—

1907–1908	$66,544
1908–1909	71,669
1909–1910	77,811
1910–1911	77,840
1911–1912	84,720

ACETIC ACID :—

The revenue derived from Acetic Acid during the Fiscal Year ended March 31, 1912, and the four preceding Fiscal Years, was as follows :—

1907–1908	$ 3,314
1908–1909	3,841
1909–1910	6,037
1910–1911	10,242
1911–1912	11,300

INSPECTION OF PETROLEUM :—

The quantity of Petroleum and Naphtha inspected during the Fiscal Year was as follows :—

	Galls.
Petroleum	20,886,072·43
Naphtha	5,577,591·62
Total	26,463,664·05

WEIGHTS AND MEASURES, GAS AND ELECTRIC LIGHT :—

The usual special reports in relation to these services have been prepared, containing all statistical information.

The aggregate revenue accrued from these services was $222,928.85, the cost of the three services being $203,049.80.

PREVENTION OF ADULTERATION OF FOOD AND AGRICULTURAL FERTILIZERS :—

The usual supplementary report in relation to this service will be submitted, containing details of the work done and the report of the chief analyst.

METHYLATED SPIRITS :—

The quantity of methylated spirits manufactured during the Fiscal Year was 198,734·09 proof gallons, and the sales 196,409·54 proof gallons. A statement of details appears on page 58 and 59.

The price of this denatured alcohol is practically the actual cost of manufacture and is as follows :—

Grade No. 1. "Standard".—When consigned to points East of Toronto and West of Quebec, both inclusive, 65c. per Imperial gallon ; when consigned to points beyond Toronto and Quebec, 63c. per Imperial gallon.

Grade No. 1. "Benzine".—When consigned as above 55c. and 53c. per Imperial gallon respectively.

Grade No. 2. "Standard".—75c. per Imperial gallon.

Grade No. 2. "Coloured".—60c. per Imperial gallon.

APPENDIX **A** shows the consumption of, and revenue derived annually from spirits, tobacco and other goods subject to Excise, and of similar goods subject to duties of Customs, per head, of the population of the Dominion.

APPENDIX **B** contains, as usual, the details concerning illicit stills seized during the year.

APPENDIX **C** shows the amounts of Excise Revenue collected at each Out-Office and under various headings, separately.

I have the honour to be, sir,

Your obedient servant,

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX A.

TABLE showing the Annual Consumption, per head, of the undermentioned articles paying Excise and Customs Duties, and the Revenue per head derived annually.

Years.	Canada.									
	Quantity.					Duty.				
	Spirits.	Beer.	Wine.	Tobacco.	Petroleum.	Spirits.	Beer.	Wine.	Tobacco.	Petroleum.
	Galls.	Galls.	Galls.	Lbs.	Galls.	$	$	$	$	$
1869	1·124	2·290	·115	1·755	·575	·761	·092	·037	·193	·041
1870	1·434	2·163	·195	2·190	1·103	·962	·085	·049	·259	·061
1871	1·578	2·490	·259	2·052	1·591	1·059	·095	·056	·336	·077
1872	1·723	2·774	·257	2·481	1·302	1·160	·108	·070	·422	·076
1873	1·682	3·188	·238	1·999	1·387	1·135	·120	·066	·350	·084
1874	1·994	3·012	·288	2·566	1·618	1·333	·119	·086	·442	·103
1875	1·394	3·091	·149	1·995	1·589	1·127	·114	·069	·428	·098
1876	1·204	2·454	·177	2·316	1·360	1·182	·098	·075	·513	·105
1877	·975	2·322	·096	2·051	1·103	·949	·109	·057	·446	·084
1878	·960	2·169	·096	1·976	.....	·927	·147	·052	·439	.....
1879	1·131	2·209	·104	1·954	.....	1·005	·125	·057	·449	.....
1880	·715	2·248	·077	1·936	.....	·772	·081	·055	·428	.....
1881	·922	2·293	·099	2·035	.....	·990	·081	·073	·443	...
1882	1·009	2·747	·120	2·150	.....	1·084	·098	·092	·485	.....
1883	1·090	2·882	·135	2·280	.....	1·186	·103	·097	·473	.....
1884	·998	2·924	·117	2·476	.....	1·074	·104	·082	·365	.....
1885	1·126	2·639	·109	2·623	.....	1·198	·111	·074	·393	.....
1886	·711	2·839	·110	2·052	.....	1·007	·091	·074	·502	....
1887	·746	3·084	·095	2·062	.....	1·045	·100	·066	·514	....
1888	·645	3·247	·094	2·093	.....	·944	·110	·066	·509	.....
1889	·776	3·263	·097	1·153	.....	1·107	·114	·068	·529	.....
1890	·883	3·360	·104	2·143	.....	1·257	·121	·072	·539	.....
1891	·745	3·790	·111	2·292	.....	1·094	·137	·080	·590	.....
1892	·701	3·516	·101	2·291	.....	1·156	·211	·075	·680	.....
1893	·740	3·485	·094	2·314	.....	1·235	·218	·070	·691	.....
1894	·742	3·722	·089	2·264	.....	1·235	·205	·060	·683	.....
1895	·666	3·471	·090	2·163	.....	1·124	·161	·056	·645	.....
1896	·623	3·528	·070	2·120	.....	1·159	·164	·047	·639	.....
1897	·723	3·469	·084	2·243	.....	1·341	·213	·041	·671	.....
1898	·536	3·808	·082	2·358	.....	1·306	·126	·041	·615	.....
1899	·661	3·995	·086	2·174	.....	1·367	·174	·045	·841	....
1900	·701	4·364	·085	2·300	.....	1·455	·185	·044	·853	.....
1901	·765	4·737	·100	2·404	.....	1·593	·198	·048	·875	.....
1902	·796	5·102	·090	2·404	.....	1·653	·214	·048	·915	.....
1903	·870	4·712	·096	2·548	.....	1·812	·205	·051	·992	....
1904	·952	4·918	·096	2·765	.....	1·985	·225	·051	1·042	.....
1905	·869	4·972	·090	2·686	.....	1·842	·207	·040	1·005	.....
1906	·861	5·255	·091	2·777	.....	1·800	·228	·050	1·053	.....
*1907 (nine months)	·947	5·585	·092	2·953	.....	1·972	·249	·053	1·276	.....
1908	·889	5·812	·096	2·898	.....	1·858	·253	·054	1·129	.....
1909	·806	5·348	·085	2·910	.....	1·681	·225	·047	1·032	.....
1910	·815	5·276	·097	2·940	.....	1·702	·223	·053	·979	....
1911	·859	5·434	·104	3·011	.....	1·801	·233	·053	1·048	.....
†1912	1·630	6·598	·114	3·679	.....	2·170	·288	·063	1·336	.....
Average	·957	3·656	·118	2·337	.....	1·310	·156	·061	·660	.....

* Calculation on basis of 12 months.

† MEMORANDUM:—The annual consumption and revenue, per head, is based upon an estimated population furnished by the Chief Officer of Census and Statistics. The estimated population for the years 1910, 1911 and 1912, was 7,489,781, 7,901,530 and 7,423,000 respectively.

W. J. GERALD, *Deputy Minister.*

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX B.

STATEMENT of izures of Illicit Manufactures for the year ended March 31, 1912.

Division.	No.	Date.	Names.	Residences.	Schedule Value.	Remarks.
		1911.			$ cts.	
Montreal.....	1223	June 10.....	G. Viens & Jos. Lecompte....	Montreal.....	104 00	Fine $100 each imposed and paid.
"	1226	Nov. 29	E. Bourassa & E. Charbonneau	"	66 05	Case carried over to the September term of the Court of King's Bench.
		1912.				
Montreal.....	1230	Jan. 13.....	Zelog. Segal, B. Lipson & B. Ram.....	"	10 00	Fine $250 imposed and paid.
"	1235	Mar. 20	P. Sauriol & J. Tremblay	"	58 00	Case appeared before court and by consent of the Hon. the Minister was given till 5th of September to pay the fine, viz., $500. The bond, by order of the Judge, was extended to cover that date.
Quebec.....	622	Jan. 27.....	Alf. Massicotte.....	Ellis Bay.....	4 00	No action taken.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX C.

STATEMENT showing the Amount of Excise and other Revenues collected at each of the undermentioned Out-Offices, during the year March 31, 1912.

Divisions.	Out-Offices.	Licenses.	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Manufactures in Bond.	Other Receipts.	Electric Light Inspection Fees.	Totals.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Belleville	Deseronto										
	Picton										
	Trenton	50 00	8,612 11								8,662 11
Brantford	Delhi										
	Ingersoll										
	Norwich	50 00						2,326 64	600 00		2,976 64
	Paris										
	Port Dover	25 00			32 40						57 40
	Port Rowan										
	Simcoe	100 00	12,825 53			350 70	263 40		93 48		13,633 11
	St. George										
	Tavistock										
	Waterford										
	Woodstock	100 00			1,084 38	1,698 76	705 00		1,513 94		5,102 08
Guelp	Berlin	400 00	47,559 76		24,525 00	4,616 22	2,609 59		3,242 43		82,953 00
	Galt	100 00			1,726 68				584 24		2,410 92
	New Hamburgh	50 00			1,805 40						1,855 40
	Preston	150 00			4,048 50	1,414 84	620 85		1,337 74		7,571 93
	Waterloo	550 00	298,788 27		54,170 65	1,310 68	1,700 20		1,681 49	3,940 00	362,141 19
Hamilton	Dundas	200 00			31,111 95						31,311 95
Kingston	Napanee	50 00	1,003 46						163 52		1,216 98
London	Alviston										
	Arkona										
	Aylmer										
	Dutton										
	Forest										
	Glencoe										
	Parkhill										
	Petrolea	51 00	6,775 29						36 16		6,862 45
	Port Stanley										
	Sarnia	101 00	25,192 99						46 57		25,340 56
	St. Thomas	200 00			5,340 00	8,736 56	3,022 50				17,299 06
	Strathroy								477 39		477 39
	Thedford										

	Watford										
	West Lorne										
Ottawa	Buckingham	50 00	7,655 02								7,705 02
	Ville-Marie		1,386 63								1,386 63
Owen Sound	Collingwood										
	Kincardine										
	Meaford										
	Newstadt	100 00			2,505 60				154 99		2,760 59
	Walkerton	100 00			4,785 00				268 84		5,153 84
Perth	Arnprior	100 00	13,138 36								13,238 36
	Eganville	50 00	6,348 84								6,398 84
	Haileybury	50 00				883 32	270 45				1,203 77
	New Liskeard	50 00	22,926 45								22,976 45
	North Bay	100 00	19,043 67		5,400 00						24,543 67
	Pembroke	230 00	8,165 21			1,943 97	261 40				10,600 58
	Renfrew										
	Sturgeon Falls	50 00	28,140 68								28,190 68
	Sudbury	175 00	48,772 21		26,370 00						75,317 21
Peterborough	Cobourg	50 00	5,795 24								5,845 24
	Lindsay	50 00			2,702 20						2,752 20
	Port Hope	53 33	3,955 74								4,005 74
Port Arthur	Dryden	50 00	2,082 85								2,132 85
	Fort Frances	50 00	3,908 42								3,958 42
	Fort William	300 00	44,413 72		13,830 45	1,311 94	489 45				60,345 56
	Kenora	100 00	22,171 74		2,174 67						24,446 41
	Rainy River	50 00	12,912 21								12,962 21
	Wabigoon										
Prescott	Brockville	200 00	6,796 93		2,588 40	1,095 64	946 00		396 51		12,023 48
	Cornwall	50 00			32,850 00				67 28		32,967 28
St. Catharines	Beamsville										
	Crystal Beach								50 00		50 00
	Dunnville	50 00			271 60	273 20					594 80
	Fort Erie										
	Grimsby										
	Humberstone	100 00				343 56	544 90				988 46
	Merritton										
	Niagara Falls	75 00				281 40	500 20		106 83		963 43
	Niagara-on-the-Lake										
	Port Colborne	50 00			8,610 00						8,660 00
	Port Dalhousie										
	Queenstown										
	Thorold										
	Welland										
Stratford	Goderich	50 00	1,044 19								1,094 19
	Listowell	100 00			3,316 50	2,078 76	1,172 20		61 97		6,729 43
	Palmerston	250 00			9,139 20				49 00		9,438 20
	St. Marys	50 00				206 08	207 90				463 98
	Seaforth	50 00							275 64		325 64

APPENDIX D—*Continued.*

STATEMENT showing the amount of Excise and other Revenues collected at each of the undermentioned Out-Offices during the year ended March 31, 1912.

Divisions.	Out-Offices.	Licenses.	Spirits.	Malt. Liquor.	Malt.	Tobacco.	Cigars.	Manufactures in Bond.	Other Receipts.	Electric Light Inspection Fees.	Totals.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Toronto	Barrie	100 00			1,965 02						2,065 02
	Hornby	100 00			3,674 73						3,774 73
	Orillia	100 00			409 50						509 50
	Sault Ste. Marie	350 00	36,931 67		15,525 00	1,904 40	1,201 30				55,912 37
	Whitby	25 00	663 60								688 60
Windsor	Chatham	200 00	37,770 92			1,067 56	582 50				39,620 98
	Kingsville	100 00				5,578 09	447 30				6,125 39
	Leamington	150 00				462 56	218 80	5,874 12	602 50		7,307 98
	Wallaceburg	1 00									1 00
Joliette	Berthierville	250 00	18,772 62						12,365 75		31,388 37
	L'Assomption	100 00				468 23	684 85				1,253 08
	L'Epiphanie	50 00				149 80					199 80
	St. Esprit	50 00				1,072 12	3,132 00				4,254 12
	St. Jacques	50 00				83 45					133 45
	St. Lin	100 00				3,272 12	1,578 00				4,950 12
	St. Roch	100 00				328 23					428 23
Montreal	Chambly Basin										
	Lachine										
	St. Jérôme	100 00	21,746 66								21,846 66
	St. Laurent										
	Ste. Thérèse										
	Valleyfield	100 00	86,603 89								86,703 89
Quebec	Chicoutimi	200 00	12,364 56			33 32	11 00				12,608 88
	Fraserville	200 00	39,499 66								39,699 66
	Gaspé	50 00	934 57								984 57
	Roberval	50 00	3,492 70								3,542 70
St. Hyacinthe	Farnham	100 00				602 00	77 00				779 00
	L'Ange-Gardien	50 00					31 07				81 07
	St. Jean	150 00	17,891 44					2,212 77	611 00		20,865 21
	Sorel	200 00	27,570 28								27,770 28
	Victoriaville	50 00	20,887 23						332 70		21,269 93
Sherbrooke	Granby	200 00				320,721 97	6,738 48				327,660 45
Three Rivers	Grand-Mère	50 00	3,163 28								3,213 28
	Louiseville	50 00	7,796 74								7,846 74
	Shawinigan	50 00				1,530 00					1,580 00

St. John	Bathurst										
	Campobello										
	Chatham										
	Clairs										
	Fredericton										
	Moncton										
	New Castle										
	Sackville										
	St. Stephens	50 00	1,072 75			108 00					1,230 75
	Sussex										
Halifax	Amherst	50 00				324 00					374 00
	Lunenburg										
	Parrsborough										
	Truro	50 00				1,135 75					1,185 75
	Weymouth										
	Windsor										
	Yarmouth	50 00				1,402 52	887 50				2,340 02
Pictou	Antigonish										
	New Glasgow										
	North Sydney										
	Sidney	150 00	6,405 60				118 30				6,673 90
Charlottetown	Georgetown										
	Souris										
	Summerside										
Winnipeg	Brandon	350 00	66,143 35	184 50	14,355 00	4,790 24	2,003 62				87,826 71
	Dauphin	50 00	3,528 55								3,578 55
	Morden	100 00	6,248 86								6,348 86
	Portage la Prairie	150 00	20,033 82			939 68	346 50				21,470 00
	Selkirk	50 00	3,023 84								3,073 84
	Virden	50 00	8,697 77								8,747 77
Calgary	Camrose	50 00	5,754 38								5,804 38
	Edmonton	500 00	137,169 92	10,690 60	11,925 00	11,592 56	3,343 40		49 68		175,271 16
	Fort Saskatchewan	50 00	2,192 86								2,242 86
	High River	50 00	1,737 34								1,787 34
	Lacombe	50 00	11,494 26								11,544 26
	Lethbridge	200 00	24,593 84	9,840 00	16,953 00	699 72	245 40				52,531 96
	Medicine Hat	50 00	12,920 77								12,970 77
	Pincher Creek	50 00	421 95								471 95
	Stettler	75 00	651 07			261 52	50 00				1,037 59
	Strathcona	175 00	7,496 85		9,150 00	1,878 80	524 60				19,225 25
	Taber	50 00	3,130 32								3,180 32
	Vermilion	50 00	2,449 82								2,499 82
	Wetaskiwin	50 00	11,600 51								11,650 51
Moosejaw	Estevan	50 00	6,539 07						2 88		6,591 95
	Maple Creek										
	Melville	50 00	8,923 20								8,973 20
	North Battleford	50 00	1,950 68						2 88		2,003 56
	Prince Albert	150 00	23,906 15		4,753 50				14 80		28,824 45
	Regina	275 00	27,488 06		3,600 00	1,068 06	476 35				32,907 47
	Rosthern	25 00	4,141 62								4,166 62

APPENDIX C—*Concluded.*

STATEMENT showing the amount of Excise and other Revenues collected at each of the undermentioned Out-Offices during the year ended March 31, 1912.

Divisions.	Out-Offices.	Licenses.	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Manufactures in Bond.	Other Receipts.	Electric Light Inspection Fees.	Totals.
		$ cts.	$ cts.	$ cts	$ cts.	$ cts	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Moosejaw—*Con.*	Saskatoon	250 00	46,059 97	6,006 00	10,200 00	2,621 50	823 29				65,960 76
	Swift Current	50 00	15,590 73						3 60		15,644 33
	Weyburn	50 00	8,436 77						3 60		8,490 37
Vancouver	Anaconda	50 00									50 00
	Cranbrook	150 00	16,724 17		60 00						16,934 17
	Fernie	200 00	11,752 45		9,666 02	395 08	359 80				22,373 35
	Golden	50 00	5,442 67								5,492 67
	Grand Forks	100 00			300 00						400 00
	Greenwood	50 00	14,542 87								14,592 87
	Kamloops	150 00	4,911 61		1,716 60	1,135 68	319 90				8,233 79
	Kelowna	100 00			120 00	42 60	85 70				347 70
	Merritt	50 00									50 00
	Michel	156 60	6,323 60		2,633 56						9,161 50
	Moyie	50 00			450 00						500 00
	Nelson	250 00	31,016 40		4,095 00	2,682 26	1,028 72				39,072 38
	New Westminister	262 50	8,519 13	260 10	10,410 00	9,173 08	3,292 00				31,916 81
	Phœnix	50 00			3,000 00						3,050 00
	Prince Rupert	100 00	4,378 66								4,478 66
	Princeton	50 00			487 95						537 95
	Revelstoke	300 00	11,782 56		1,638 36	812 56	316 00		3 70		14,853 18
	Rossland	150 06	5,980 20	420 00	1,485 15	828 24	281 00				9,144 59
	Trail	50 00			2,400 00						2,450 00
	Vernon	150 00	8,204 97		261 60	28 00	53 20				8,697 77
Victoria	Cumberland	50 00			3,000 00						3,050 00
	Ladysmith	50 00				2,079 29	632 35				2,761 64
	Nanaimo	400 00	6,402 25	1,842 44	11,934 12	4,308 98	1,007 00				25,894 79
Yukon	Dawson										
	Totals	14,795 50	1,611,295 96	29,243 64	384,607 53	412,127 00	44,210 97	10,413 53	25,201 11	3,940 00	2,535,835 24

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

FINANCIAL RETURNS, 1911-1912

DR. No. 1.—GENERAL REVENUES ACCOUNT FOR THE YEAR ENDED MARCH 31, 1912. CR.

Memo of Refunds deducted below.	Amounts deposited to the credit of the Receiver General.	Balances due March, 31, 1912.	Totals.	SERVICES.	Revenues of previous years not collected April 1, 1911.	Revenues accrued 1911–1912.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
136,788 10	19,308,175 86	19,777 20	19,327,953 06	Excise and Seizures, per Statement No. 3	19,563 44	19,308,389 62	19,327,953 06
2 95	107,686 01	92 72	107,778 73	Weights and Measures, per Statements Nos. 18 A and 18 B	370 13	107,408 60	107,778 73
4 50	51,356 25	.....	51,356 25	Gas Inspection, per Statement No. 20	.....	51,356 25	51,356 25
.....	66,561 20	.....	66,561 20	Electric Light Inspection, per Statement No. 22	.....	66,561 20	66,561 20
.....	7,089 35	.....	7,089 35	Law Stamps, per Statements Nos. 8 and 7	.....	7,089 35	7,089 35
.....	.....	45 04	45 04	Bill Stamps, per Statement No. 7	45 04	.....	45 04
.....	3,272 40	.....	3,272 40	Sundry Minor Revenues, per Statement No. 9	.....	3,272 40	3,272 40
489 95	93,083 90	.....	93,083 90	Methylated Spirits, per Statement No. 25	.....	93,083 90	93,083 90
.....	769 00	2,088 62	2,857 62	Ferry Licenses Revenue, per Statement No. 11	1,833 62	1,024 00	2,857 62
137,285 50	19,637,993 97	22,003 58	19,659,997 55		21,812 23	19,638,185 32	19,659,997 55
.....	137,285 50	.....	137,285 50	LESS—Refunds as per Statement No. 15	.....	137,285 50	137,285 50
.....	19,500,708 47	.....	19,522,712 05	Totals	.....	19,500,899 82	19,522,712 05

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

DR. No. 2—GENERAL EXPENDITURES ACCOUNT FOR

Balance due to Collectors, &c., April 1, 1911.	Expenditures Authorized by the Department.			Balances due by Collectors, &c., March 31, 1911	Totals.	Services.
	Salaries.	Contingencies.	Seizures.			
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
49 08	461,573 14	218,565 37	265 15	343 98	680,796 72	Excise and Seizures, per Statement No. 4
.....	.....	.....	1,903 73	.....	1,903 73	Excise Seizures, distributed per Appendix B, Statement No. 2
.....	1,829 15	8,485 63	.....	.....	10,314 78	Preventive Service, per Statement No. 5
.....	3,458 26	18,438 24	.....	.....	21,896 50	Adulteration of Food, per Statement No. 6 and Appendix B, Statement No. 4
.....	.....	1,642 51	.....	.....	1,642 51	Sundry Minor Expenditures, per Statement No. 10
.....	103,317 48	7,994 19	.....	16 66	111,328 33	Departmental Expenditures, per Statement No. 16
.....	78,673 39	45,579 74	.....	3 70	124,256 83	Weights and Measures, per Statements Nos. 19 A and 19 B
.....	33,820 60	11,411 87	.....	212 88	45,445 35	Gas Inspection, per Statement No. 21
.....	13,563 18	21,442 02	.....	300 00	35,305 20	Electric Light Inspection, per Statement No. 23
.....	.....	66,621 43	.....	.....	66,621 43	Methylated Spirits, per Statement No. 25
49 08	696,235 20	400,181 00	2,168 88	877 22	1,099,511 38	Totals

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

THE YEAR ENDED MARCH 31, 1912. Cr.

Balances due by Collectors, &c., April 1, 1912.	Amounts disbursed by the Receiving General, on requisition of the Department.	Deductions from Salaries for				Balances due to Collectors, &c., March 31, 1912.	Totals.
		Superannuation.	Insurance.	Retirement.	Guarantee.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
343 98	660,316 40	4,353 80	1,677 68	11,471 54	1,360 02	1,273 30	680,796 72
.....	1,903 73	.....	.....	.....	.....	.....	1,903 73
.....	10,311 90	.....	.....	.....	2 88	.....	10,314 78
50 00	21,819 39	11 00	.....	.....	16 11	.....	21,896 50
.....	1,642 51	.....	.....	.....	.....	.....	1,642 51
16 66	107,582 85	494 38	386 88	2,847 56	.....	.....	111,328 33
.....	123,819 45	188 10	66 00	.....	183 28	.....	124,256 83
212 88	44,913 96	97 44	.....	84 99	136 08	.....	45,445 35
.....	35,266 80	.....	.....	.....	38 40	.....	35,305 20
.....	66,621 43	.....	.....	.....	.....	.....	66,621 43
623 52	1,074.198 42	5,144 72	2,130 56	14,404 09	1,736 77	1,273 30	1,099,511 38

W. J. GERALD,
Deputy Minister.

DR. No. 3.—COLLECTION DIVISIONS

Balances due April 1, 1911.	Amount accrued during the Year, including License Fees.							
	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Acetic Acid.	Bonded Manufactures.	Seizures.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
.....	105,339 28	50 00	6,541 93	2,789 24	861 00	.....	2,080 62	.....
112 61	44,494 76	100 00	9,890 78	22,912 82	10,252 97	.....	2,376 64	.....
.....	368,465 15	300 00	108,479 18	8,960 98	6,146 54	.....	.....	.....
.....	287,959 81	100 00	70,426 19	728,586 84	37,999 61	.....	7,010 80	10 00
.....	70,738 53	100 00	6,855 92	15,988 56	6,556 40	.....	2,761 09	.....
.....	73,557 41	200 00	73,879 42	227,522 82	80,647 98	.....	.....	.....
.....	326,558 21	100 00	19,938 00	1,127 68	1,605 28	.....	826 35	700 00
.....	.....	250 00	9,570 26	3,809 14	1,536 55	.....	.....	.....
.....	189,708 62	100 00	31,870 00	2,827 79	631 85	.....	100 00	.....
.....	37,958 74	100 20	10,827 44	683 48	311 45	.....	.....	.....
.....	126,409 13	150 00	20,647 76	1,311 94	589 45	.....	.....	.....
.....	97,389 95	150 00	45,955 56	1,112 64	1,046 00	.....	.....	.....
.....	13,557 90	100 00	21,394 70	3,084 06	3,642 40	.....	.....	50 00
.....	25,385 68	150 00	15,265 70	8,548 40	3,138 72	.....	.....	.....
.....	1,243,089 56	600 00	307,172 87	174,701 80	53,615 81	.....	31,554 26	.....
.....	453,473 66	100 00	51,920 61	13,539 88	2,855 71	.....	6,324 12	.....
522 89	.....	.....	.....	.....	.....	.....	.....	.....
635 50	3,464,086 39	2,650 00	810,636 32	1,217,508 07	211,437 72	.....	53,033 88	760 00
.....	82,422 78	.....	.....	13,048 66	12,695 62	.....	.....	.....
1,508 20	1,919,138 37	5,769 00	378,702 57	6,174,540 21	208,940 91	11,299 95	7,693 82	954 74
0 70	471,636 60	125 00	21,006 38	212,167 20	11,357 62	.....	3,692 30	.....
.....	139,249 48	50 00	16,300 50	356,062 45	19,028 43	.....	300 00	50 00
.....	114,466 24	.....	675 00	652 00	208 07	.....	2,998 49	.....
54 27	69,124 19	25 00	600 00	3,238 64	1,509 62	.....	.....	.....
3,295 57	.....	.....	.....	.....	.....	.....	.....	.....
4,858 74	2,796,028 66	5,969 00	417,284 45	6,759,709 16	253,738 27	11,299 95	14,684 61	1,004 74
.....	181,196 36	100 00	19,875 60	5,012 92	8,281 30	.....	3,518 48	305 00
1,442 62	.....	.....	.....	.....	.....	.....	.....	.....
1,442 62	181,196 36	100 00	19,875 60	5,012 92	8,281 30	.....	3,518 48	305 00
.....	47,977 48	150 00	43,230 27	3,667 55	1,555 16	.....	.....	100 00
.....	6,405 60	.....	.....	1,922 79	526 50	.....	.....	.....
5,860 50	.....	.....	.....	.....	.....	.....	.....	.....
5,860 50	54,383 08	150 00	43,230 27	5,590 34	2,081 66	.....	.....	100 00
.....	.....	.....	.....	12,603 87	.....	.....	.....	.....
.....	1,000,330 00	484 50	147,164 91	47,684 06	14,709 04	.....	12,083 92	.....
5,563 99	386,404 88	20,780 60	90,035 45	18,457 60	6,338 03	.....	.....	.....
.....	186,406 76	6,206 00	24,553 50	4,040 40	1,644 89	.....	.....	.....

1911–1912.

IN ACCOUNT WITH REVENUES. CR.

Sundries.	Total Duties accrued.	Total Debits.	DIVISIONS.	Deposited to Credit of Receiver General.	Balances due March 31, 1912.	Total Credits.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
3,152 05	120,814 12	120,814 12	Belleville	120,814 12		120,814 12
725 00	90,752 97	90,865 58	Brantford	90,752 97	112 61	90,865 58
4,090 00	496,441 85	496,441 85	Guelph	496,441 85		496,441 85
2,877 05	1,134,970 30	1,134,970 30	Hamilton	1,134,970 30		1,134,970 30
586 00	103,586 50	103,586 50	Kingston	103,586 50		103,586 50
388 00	456,195 63	456,195 63	London	456,195 63		456,195 63
703 50	351,559 02	351,559 02	Ottawa	351,559 02		351,559 02
1 05	15,167 00	15,167 00	Owen Sound	15,167 00		15,167 00
1,031 34	226,269 60	226,269 60	Perth	226,269 60		226,269 60
252 00	50,133 11	50,133 11	Peterborough	50,133 11		50,133 11
450 00	149,558 28	149,558 28	Port Arthur	149,558 28		149,558 28
1,772 00	147,426 15	147,426 15	Prescott	147,426 15		147,426 15
125 00	41,954 06	41,954 06	St. Catharines	41,954 06		41,954 06
200 00	52,688 50	52,688 50	Stratford	52,688 50		52,688 50
23,695 05	1,834,429 35	1,834,429 35	Toronto	1,834,429 35		1,834,429 35
21,892 32	550,106 30	550,106 30	Windsor	550,106 30		550,106 30
		522 89	Suspense Account		522 89	522 89
61,940 36	5,822,052 74	5,822,688 24	*Ontario*	5,822,052 74	635 50	5,822,688 24
12,082 50	120,247 56	120,247 56	Joliette	120,247 56		120,247 56
4,200 44	8,711,240 01	8,712,748 21	Montreal	8,711,025 60	1,722 61	8,712,748 21
2,210 11	722,195 21	722,195 91	Quebec	722,195 91		722,195 91
352 00	531,383 86	531,383 86	Sherbrooke	531,383 86		531,383 86
1,510 00	120,509 80	120,509 80	St. Hyacinthe	120,509 80		120,509 80
350 00	74,847 45	74,901 72	Three Rivers	74,847 45	54 27	74,901 72
		3,295 57	Suspense Account		3,295 57	3,295 57
20,705 05	10,280,423 89	10,285,282 63	*Quebec*	10,280,210 18	5,072 45	10,285,282 63
				219,197 66		219,197 66
908 00	219,197 66	219,197 66	St. John		1,442 62	1,442 62
		1,442 62	Suspense Account			
908 00	219,197 66	220,640 28	*New Brunswick*	219,197 66	1,442 62	220,640 28
300 00	96,980 46	96,980 46	Halifax	96,980 46		96,980 46
100 00	8,954 89	8,954 89	Pictou	8,954 89		8,954 89
		5,860 50	Suspense Account		5,860 50	5,860 50
400 00	105,935 35	111,795 85	*Nova Scotia*	105,935 35	5,860 50	111,795 85
	12,603 87	12,603 87	*Charlottetown, P.E.I.*	12,603 87		12,603 87
2,305 70	1,224,762 13	1,224,762 13	*Winnipeg—Manitoba*	1,224,762 13		1,224,762 13
1,300 00	523,316 56	528,880 55	*Calgary—Alberta*	523,316 51	5,564 04	528,880 55
800 00	223,651 55	223,651 55	*Moosejaw—Saskatchewan*	223,651 55		223,651 55

EXCISE

DR. No. 3.—COLLECTION DIVISIONS

Balances due April 1, 1911.	Amount accrued during the Year, including License Fees.							
	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Acetic Acid.	Bonded Manufactures.	Seizures.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,202 09	428,913 61	44,364 70	108,569 76	34,023 44	13,375 67	.....	1,399 52	150 00
.....	164,363 24	6,051 34	53,954 92	26,146 14	6,039 25	.....	.....	.....
1,202 09	593,276 85	50,416 04	162,524 68	60,169 58	19,414 92	.....	1,399 52	150 00
.....	5,552 84	.....	1,241 44	.....	.....	.....	.....	.....
19,563 44	8,667,665 82	86,756 14	1,716,546 62	8,130,776 00	517,645 83	11,299 95	84,720 41	2,319 74
.....	21,894 38	.....	113,165 06	441 16	.....	.....	.....	.....
.....	8,645,771 44	86,756 14	1,603,381 56	8,130,334 84	517,645 83	11,299 95	84,720 41	2,319 74

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912

1911-1912—*Concluded.*

IN ACCOUNT WITH REVENUES—*Concluded.* CR.

Sundries.	Total Duties accrued.	Total Debits.	DIVISIONS.	Deposited to the Credit of Receiver General.	Balances due March 31, 1912.	Total Credits.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
1,925 00	632,721 70	633,923 79	..Vancouver..	632,721 70	1,202 09	633,923 79
375 00	256,929 89	256,929 89	..Victoria.....	256,929 89	.. ..	256,929 89
2,300 00	889,651 59	890,853 68	.....*British Columbia*.....	889,651 59	1,202 09	890,853 68
.....	6,794 28	6,794 28	... .*Yukon*.....	6,794 28	.....	6,794 28
90,659 11	19,308,389 62	19,327,953 06	... .Totals.....	19,308,175 86	19,777 20	19,327,953 06
1,287 50	136,788 10	.....	..Less refunds as per statement No. 15.....	.....	.....	.....
89,371 61	19,171,601 52	.....	..Net Revenue.....	.....	.....	.. ..

W. J. GERALD,
Deputy Minister.

EXCISE

DR. No. 4.—COLLECTION DIVISIONS

Balances due by Collectors, April 1, 1911.	Amounts received from Department to meet Expenditures.	Deductions from Salaries for Superannuation.	Insurance.	Retirement.	Guarantee.	Balances due to Collectors, March 31, 1912.	Totals.	Divisions.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
43 98	15,771 74	171 01	51 36	300 07	34 32	.....	16,372 48	Belleville
.....	8,663 09	87 12	.....	248 57	25 20	.....	9,023 98	Brantford
.....	22,510 79	313 41		239 22	52 56	.....	23,115 98	Guelph
.....	25,212 50	169 56	92 56	708 84	79 68	.....	26,263 14	Hamilton
.....	8,986 20	119 69		103 25	25 20	.....	9,234 35	Kingston
.....	23,639 98	213 53	91 14	397 59	56 64	96 70	24,495 58	London
.....	8,742 19	63 48	..	275 00	28 32	.....	9,108 99	Ottawa
.....	7,045 53	51 94	....	112 44	15 84	.....	7,225 75	Owen Sound
.....	12,959 52	26 99	63 36	387 98	41 76	.....	13,479 61	Perth
.....	4,607 28	15 00	.....	122 85	10 86	.....	4,755 99	Peterborough
.....	4,516 83	..	....	197 47	12 24	.....	4,726 54	Port Arthur
.....	12,055 66	63 48	185 04	382 01	32 40	.....	12,718 59	Prescott
.....	6,511 26	73 20		122 39	15 12	.....	6,721 97	St. Catharines
.....	7,820 26	59 88	273 60	250 53	26 84	.....	8,431 11	Stratford
.....	48,297 84	486 56	224 64	1,110 24	129 02	.....	50,248 30	Toronto
.....	30,758 79	304 37	215 28	702 36	89 28	49 08	32,119 16	Windsor
.....	8,844 39	37 63	...	...	25 50	.....	8,907 52	District Inspectors
43 98	256,943 85	2,256 85	1,196 98	5,660 82	700 78	145 78	266,949 04	*Ontario*
.....	12,362 33	.....	35 04	526 46	28 80	266 99	13,219 62	Joliette
.....	61,781 18	584 67	76 34	1,423 56	165 36	860 53	64,891 64	Montreal
.....	27,630 20	198 07		540 65	58 80	.....	28,427 72	Quebec
.....	14,568 78	61 92	250 08	519 18	38 85	.....	15,438 81	St. Hyacinthe
.....	8,385 43	71 89	.....	212 69	24 48	.....	8,694 49	Sherbrooke
.....	3,984 22	51 85		51 09	11 88	.....	4,099 04	Three Rivers
.....	5,360 73	54 00		116 52	16 91	.....	5,548 16	District Inspectors
.....	134,072 87	1,022 40	361 46	3,390 15	345 08	1,127 52	140,319 48	*Quebec*
.....	13,044 38	185 52	.....	174 54	38 16	.....	13,442 60	St. John
.....	3,039 55	54 00		...	9 00	.....	3,093 55	District Inspector
.....	16,074 93	239 52	...	174 54	47 16	...	16,556 15	*New Brunswick*
.....	13,017 43	251 73	...	22 44	36 00	....	13,327 60	Halifax
.....	3,433 09	27 36		93 80	9 36	.....	3,584 21	Pictou
.....	16,450 52	279 09	...	116 24	45 36	.....	16,911 81	*Nova Scotia*
100 00	2,363 51	..		41 25	6 48	.....	2,511 24	*Charlottetown, P.E.I.*
200 00	25,857 28	201 22	77 52	632 26	60 48	.....	27,026 76	Winnipeg
.....	11,587 61	38 04		206 97	23 76	.....	11,915 98	Calgary
.....	6,612 91	23 76	.....	170 88	16 56	.....	6,824 11	Moosejaw
.....	4,521 15				9 00	.....	4,530 15	District Inspector
200 00	46,576 95	263 02	77 52	1,009 11	109 80	.....	48,237 00	*Manitoba, Alberta and Saskatchewan*

1911–1912.

IN ACCOUNT WITH EXPENDITURES. CR.

Balances due to Collectors, April 1, 1911.	Expenditures authorized by the Department.						Balances due by Collectors, March 31, 1912.	Totals.
	Salaries.	Seizures Expenditures.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
.....	13,557 10	.....	1,038 41	.....	1,540 20	192 79	43 98	16,372 48
.....	8,324 74	.....	159 05	.....	253 80	286 39	.....	9,023 98
.....	22,068 30	.....	28 00	180 00	328 00	511 68	.....	23,115 98
.....	25,869 94	.....	20 00	.....	62 75	310 45	.....	26,263 14
.....	9,065 49	.....	.....	.....	83 60	85 26	.....	9,234 35
.....	23,128 27	.....	757 83	.....	254 55	354 93	.....	24,495 58
.....	8,683 80	.....	254 80	.....	37 10	133 29	.....	9,108 99
.....	6,649 93	.....	299 96	.....	197 60	78 26	.....	7,225 75
.....	11,512 09	.....	679 66	260 00	689 44	338 42	.....	13,479 61
.....	3,208 97	.....	866 98	.....	274 15	405 89	.....	4,755 99
.....	3,953 05	.....	166 67	.....	391 65	215 17	.....	4,726 54
.....	11,778 27	.....	612 25	.....	31 65	296 42	.....	12,718 59
.....	6,409 81	1 50	10 00	60 00	111 40	129 26	.....	6,721 97
.....	8,015 33	.....	54 00	.....	146 25	215 53	.....	8,431 11
.....	45,534 49	.....	3,104 09	.....	825 95	783 77	.....	50,248 30
49 08	29,690 50	.....	1,694 69	21 00	336 80	327 09	.....	32,119 16
.....	7,066 60	.....	.....	200 00	1,228 14	412 78	.....	8,907 52
49 08	244,516 68	1 50	9,746 39	721 00	6,793 03	5,077 38	43 98	266,949 04
.....	10,536 55	.....	2,188 48	.....	159 75	334 84	.....	13,219 62
.....	53,688 87	80 75	8,569 35	.....	1,111 60	1,441 07	.....	64,891 64
.....	21,017 88	2 60	5,579 56	.....	957 29	870 39	.....	28,427 72
.....	12,891 70	.....	1,824 33	144 00	257 92	320 86	.....	15,438 81
.....	7,857 19	.....	6 00	.....	513 40	317 90	.....	8,694 49
.....	3,624 81	10 80	288 56	.....	57 20	117 67	.....	4,099 04
.....	5,030 90	.....	.....	.....	491 76	25 50	.....	5,548 16
.....	114,647 90	94 15	18,456 28	144 00	3,548 92	3,428 23	.....	140,319 48
.....	12,753 30	144 50	264 81	.....	53 95	226 04	.....	13,442 60
.....	2,700 00	.....	.....	.....	358 55	35 00	.....	3,093 55
.....	15,453 30	144 50	264 81	.....	412 50	261 04	.....	16,536 15
.....	13,049 88	25 00	.....	.....	136 35	116 37	.....	13,327 60
.....	3,277 39	.....	17 50	.....	144 15	145 17	.....	3,584 21
.....	16,327 27	25 00	17 50	.....	280 50	261 54	.....	16,911 81
.....	2,233 29	.....	120 00	.....	6 65	51 30	100 00	2,511 24
.....	20,708 50	.....	3,077 60	60 00	541 10	439 56	200 00	25,026 76
.....	7,259 37	.....	2,845 97	.....	1,103 00	707 64	.....	11,915 98
.....	4,219 80	.....	1,399 94	120 00	806 45	277 92	.....	6,824 11
.....	2,700 00	.....	.....	.....	1,715 75	113 40	.....	4,530 15
.....	34,887 67	.....	7,323 51	180 00	4,167 30	1,538 52	200 00	48,297 00

EXCISE

DR. No. 4.—COLLECTION DIVISIONS

Balances due by Collectors, April 1, 1911.	Amounts received from Department to meet Expenditures.	Deductions from Salaries for				Balances due to Collectors, March 31, 1912.	Totals.	Divisions.
		Superannuation.	Insurance.	Retirement.	Guarantee.			
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
.....	23,995 59	39 96	41 72	886 69	69 00	.....	25,032 96	..Vancouver .....
.....	8,771 03	137 77	.....	82 74	20 16	.....	9,011 70	..Victoria. .....
.....	4,149 18	54 00	.....	.....	9 00	.....	4,212 18	..District Inspector.....
.....	36,915 80	231 73	41 72	969 43	98 16	.....	38,256 84	..*British Columbia*.....
.....	1,073 80	.....	.....	50 00	7 20	.....	1,131 00	..*Yukon*.....
.....	396 98	.....	.....	.....	.....	.....	396 98	..Inspector of Bonded Factories. .....
.....	1,340 35	.....	.....	.....	.....	.....	1,340 35	..Inspector of Breweries and Malt Houses.....
.....	.....	.....	.....	.....	.....	.....	.....	..Inspector of Distilleries..
.....	3,218 20	59 99	.....	.....	.....	.....	3,278 19	..Inspector of Tobacco Factories.....
343 98	515,447 76	4,353 80	1,677 68	11,471 54	1,360 02	1,273 30	535,928 08	..Totals of Divisions, &c...
.....	11,651 09	.....	.....	.....	.....	.....	11,651 09	..General Expenditures....
.....	686 24	.....	.....	.....	.....	.....	686 24	..Legal Expenses.....
.....	10,112 88	.....	.....	.....	.....	.....	10,112 88	..Printing.....
.....	2,051 88	.....	.....	.....	.....	.....	2,051 88	..Stationery.....
.....	3,809 10	.....	.....	.....	.....	.....	3,809 10	..Commission to Customs Officers.....
.....	14,635 07	.....	.....	.....	.....	.....	14,635 07	..Duty-pay to Officers in charge of most important establishments.....
.....	8,832 27	.....	.....	.....	.....	.....	8,832 27	..Provisional Allowance...
.....	90 11	.....	.....	.....	.....	.....	90 11	..Special Translation.....
.....	93,000 00	.....	.....	.....	.....	.....	93,000 00	..Printing Tobacco Stamps
343 98	660,316 40	4,353 80	1,677 68	11,471 54	1,360 02	1,273 30	680,796 72	..Grand Totals.....

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

1911-12.

IN ACCOUNT WITH EXPENDITURES—*Concluded.* CR.

Balances due to Collectors, April 1, 1911.	Expenditures authorized by the Department.						Balances due by Collectors, March 31, 1912.	Totals.
	Salaries.	Seizures Expenditures.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
.....	19,749 76	.....	2,321 21	450 00	1,403 55	1,108 44	.....	25 032 96
.....	6,457 27	.....	2,108 29	.....	132 30	313 84	.....	9,011 70
.....	2,700 00	.....	.....	.....	1,461 98	50 20	.....	4,212 18
.....	28,907 03	.....	4.429 50	450 00	2,997 83	1,472 48	.....	38,256 84
.....	1,000 00	.....	.....	.....	.....	131 00	.....	1,131 00
.....	300 00	.....	.....	.....	96 98	.....	.....	396 98
.....	300 00	.....	.....	.....	1,012 25	28 10	.....	1,340 35
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	3,000 00	.....	.....	.....	255 09	23 10	.....	3,278 19
49 08	461,573 14	265 15	40,357 99	1,495 00	19,571 05	12,272 69	343 98	535,928 08
.....	.....	.....	.....	.....	.....	11,651 09	.....	11,651 09
.....	.....	.....	.....	.....	.....	686 24	.....	686 24
.....	.....	.....	.....	.....	.....	10,112 88	.....	10,112 88
.....	.....	.....	.....	.....	.....	2,051 88	.....	2,051 88
.....	.....	.....	.....	.....	.....	3,809 10	.....	3,809 10
.....	.....	.....	.....	.....	.....	14,635 07	.....	14,635 07
.....	.....	.....	.....	.....	.....	8,832 27	.....	8,832 27
.....	.....	.....	.....	.....	.....	90 11	.....	90 11
.....	.....	.....	.....	.....	.....	93,000 00	.....	93,000 00
49 08	461,573 14	265 15	40,357 99	1,495 00	19,571 05	157,141 33	343 98	680,796 72

W. J. GERALD,
Deputy Minister.

PREVENTIVE SERVICE, 1911-1912.

No. 5.—In Account with Expenditures.

Dr. Cr.

Amount received from Department to meet Expenditures.	Guarantee.	Totals.		Expenditures authorized by the Department.				Totals.
				Salaries.	Special Assistance.	Travelling Expenses.	Sundries.	
$ cts.	$ cts	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts
9 05	....	9 05	Ottawa	....	....	8 40	65	9 05
....	....	....	Owen Sound	....	....	....	....	....
....	....	....	Prescott	....	....	....	....	....
904 28	2 88	904 16	Toronto	904 16	....	....	....	904 16
705 96	....	705 96	Joliette	....	699 96	6 00	....	705 96
600 00	....	600 00	Montreal	....	600 00	....	....	600 00
2,496 66	....	2,496 66	Quebec	....	2,442 36	54 30	....	2,496 66
603 50	....	603 50	St. Hyacinthe	....	600 00	3 50	....	603 50
39 85	....	39 85	Sherbrooke	....	....	39 85	....	39 85
1,326 36	....	1,326 36	St. John, N.B.	924 99	295 97	105 40	....	1,326 36
166 60	....	166 60	Halifax	....	166 60	....	....	166 60
1,159 15	....	1,159 15	Pictou	....	1,100 00	58 15	1 00	1,159 15
....	....	....	Charlottetown	....	....	....	....	....
550 00	....	550 00	Winnipeg	....	550 00	....	....	550 00
724 93	....	724 93	Vancouver	....	724 93	....	....	724 93
1,028 56	....	1,028 56	General	....	....	....	1,028 56	1,028 56
10,311 90	2 88	10,314 78	Totals	1,829 15	7,179 82	275 60	1,030 21	10,314 78

Inland Revenue Department,
Ottawa, June 1, 1912.

W. J. GERALD,
Deputy Minister.

FOOD INSPECTION, 1911–1912.

No. 6.— In Account with Expenditures.

Dr. Cr.

Balance due by Inspectors April 1, 1911.	Amount received from Department to meet Expenditures.	Superannuation.	Guarantee.	Totals.	—	Expenditures authorized by the Department. Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Balance due by Inspectors March 31, 1912.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
	4,798 84			4,798 84	Chief Analyst		118 65	519 50	284 65	3,876 04		4,798 84
	280 92		1 08	282 00	Kingston, Ont.	200 00			35 35	46 65		282 00
	339 49		1 08	340 57	London, Ont.	200 00			76 61	63 96		340 57
	233 86			233 86	Ottawa, Ont.				128 14	105 72		233 86
	132 56		72	133 28	Ottawa and Hull	133 28						133 28
50 00	184 28		27	234 55	Seaforth, Ont.	124 98		26 48	38 35	44 74		234 55
	364 72		1 08	365 80	Toronto, Ont.	200 00			90 60	75 20		365 80
	538 11	7 00	1 08	546 19	Montreal, Que.	350 00	5 00		95 10	96 09		546 19
	564 53		1 08	565 61	Quebec, Que.	300 00		110 00	8 05	147 56		565 61
	529 81		1 08	530 89	St. Hyacinthe, Que.	200 00			226 95	103 94		530 89
	476 97	4 00	1 08	482 05	St. John, N.B.	200 00			200 90	81 15		482 05
	557 02		1 08	558 10	Halifax, N.S.	350 00			144 35	63 75		558 10
	310 02		1 08	311 10	Charlottetown, P.E.I.	200 00			36 05	75 05		311 10
	431 71		1 08	432 79	Calgary, Alta.	200 00			126 80	105 99		432 79
	342 41		1 08	343 49	Winnipeg, Man.	200 00			67 25	76 24		343 49
	308 42		1 08	309 50	Nelson, B.C.	200 00			11 20	98 30		309 50
	310 42		1 08	311 50	Vancouver, B.C.	200 00			30 70	80 80		311 50
	293 72		1 08	294 80	Victoria, B.C.	200 00			1 00	93 80		294 80
	2,631 86			2,631 86	Printing					2,631 86		2,631 86
	453 93			453 93	Stationery					453 93		453 93
	48 80			48 80	Special Translation					48 80		48 80
	7,686 99			7,686 99	General					7,686 99		7,686 99
50 00	21,819 39	11 00	16 11	21,896 50	Totals	3,458 26	123 65	655 98	1,602 05	16,056 56		21,896 50

Inland Revenue Department,
Ottawa, June 1, 1912.

W. J. GERALD,
Deputy Minister.

BILL STAMPS, 1911–1912.

Dr. No. 7.—Bill Stamps Distributors in account with the Inland Revenue Department. Cr.

Balances, April 1, 1911.		Totals.	——	Balances, March 31, 1912.		Totals.
Stamps on hand.	Cash on hand.			Stamps on hand.	Cash on hand.	
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
1,372 77	.....	1,372 77	Post Office Department	1,372 77	.....	1,372 77
.....	11 54	11 54	Belleville, ex-Collector E. R. Benjamin	.....	11 54	11 54
.....	33 50	33 50	Three Rivers, ex-Collector B. Lasalle	.....	33 50	33 50
160 00	.....	160 00	McLeod, Colonel J. F., Fort McLeod	160 00	.....	160 00
1,532 77	45 04	1,577 81	Totals	1,532 77	45 04	1,577 81

Inland Revenue Department,
Ottawa, June 1, 1912.

W. J. GERALD,
Deputy Minister.

LAW STAMPS, 1911-1912.

No. 8.—Law Stamps in account with the Inland Revenue Department.

Dr. Cr.

Stamps on hand April 1, 1901.	Stamps received from Department	Totals.	——	Commission of 5 per cent allowed by Department on stamps sold.	Deposited to the Credit of the Receiver General.	Stamps on hand March 31, 1912.	Totals.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
35 40	1,200 00	1,235 40	....Cameron, R., Registrar, Supreme Court	.....	1,152 85	82 55	1,235 40
	4,430 00	4,430 00	... Audette, L. A., Registrar, Exchequer Court	221 50	4,208 50	.....	4,430 00
6,074 95	3,000 00	9,074 95	...Controller, Dawson, Yukon Territorial Court	.....	1,728 00	7,346 95	9,074 95
6,110 35	8,630 00	14,740 35	..... Totals	221 50	7,089 35	7,429 50	14,740 35

Inland Revenue Department,
Ottawa, June 1, 1912.

W. J. GERALD,
Deputy Minister.

Dr. No. 9.—SUNDRY MINOR REVENUES, 1911-12. Cr

Accrued during the year ended March 31, 1912.	Totals.	——	Deposited to the Credit of the Receiver General.	Totals.
$ cts.	$ cts.		$ cts.	$ cts.
682 00	682 00	Registration of Agricultural Fertilizers Fees $357.00—Licenses $325.00	682 00	682 00
108 00	108 00	Adulteration of Food Fees $95.00—Penalties $13.00	108 00	108 00
30 40	30 40	Casual Revenue	30 40	30 40
2,112 00	2,112 00	Patent Medicines Registration Fees	2,112 00	2,112 00
340 00	340 00	Commercial Feeding Stuffs Fees $60.00—Licenses $280.00	340 00	340 00
3,272 40	3,272 40	Totals	3,272 40	3,272 40

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

Dr. No. 10.—SUNDRY MINOR EXPENDITURES, 1911-12. Cr.

Amounts received from the Department to meet Expenditures.	Totals.	——	Printing.	Contingencies.	Totals.
$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
140 05	140 05	Sundries		140 05	140 05
14 81	14 81	Printing	14 81		14 81
380 52	380 52	Export of Electric Power		380 52	380 52
273 50	273 50	Compensation Vote in connection with the fire of the Laboratory and Methylated Warehouse		273 50	273 50
400 00	400 00	Patent Medicines Act		400 00	400 00
421 31	421 31	" Printing	421 31		421 31
12 32	12 32	" Stationery	12 32		12 32
1,642 51	1,642 51		448 44	1,194 07	1,642 51

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

No. 11.—FERRY LICENSES, REVENUE FOR 1911-1912.

Dr. Balances due April 1, 1911.	Accrued during the year ended March 31, 1912.	Totals.	——	Cr. Deposited to the credit of the Receiver General.	Balances due March 31, 1912.	Totals.
$ cts.	$ cts.	$ cts.	*Ferries.*	$ cts.	$ cts.	$ cts.
.....	15 00	15 00	Buckingham and Cumberland	15 00	.....	15 00
.....	50 00	50 00	Buffalo and Point Abinot	50 00	.....	50 00
45 83	.....	45 83	Clair Station and Kent	.....	45 83	45 83
.....	10 00	10 00	Courtright and St. Clair	10 00	.....	10 00
.....	20 00	20 00	Cross Point and Campbellton	20 00	.....	20 00
20 00	.....	20 00	Edmundston and Maine	.....	20 00	20 00
.....	20 00	20 00	Fassett and St. Thomas d'Alfred	20 00	.....	20 00
.....	50 00	50 00	Fort Erie and Buffalo	50 00	.....	50 00
.....	25 00	25 00	Fort Frances	25 00	.....	25 00
1,736 79	.....	1,736 79	Hull (old lease)	.....	1,736 79	1,736 79
.....	50 00	50 00	Lapasse	50 00	.....	50 00
.....	6 00	6 00	Montebello and Alfred	6 00	.....	6 00
.....	30 00	30 00	Niagara and Youngstown	30 00	.....	30 00
.....	1 00	1 00	Ouellette Street, Detroit	1 00	.....	1 00
1 00	.....	1 00	Pembroke and Allumette Island (old lease)	.....	1 00	1 00
.....	130 00	130 00	Pembroke and Allumette Island (new lease)	130 00	.....	130 00
.....	1 00	1 00	Prescott and Ogdensburg	1 00	.....	1 00
.....	515 00	515 00	Rockcliffe and Gatineau	260 00	255 00	515 00
.....	100 00	100 00	Sault Ste. Marie	100 00	.....	100 00
30 00	.....	30 00	St. Leonard and Van Buren	.....	30 00	30 00
.....	1 00	1 00	Walkerville and Detroit	1 00	.....	1 00
1,833 62	1,024 00	2,857 62	Totals	769 00	2,088 62	2,857 62

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

No. 12.—STATEMENT showing the quantities of the several articles subject
1910, 1911, 1912, and

Articles Subject to Excise Duty.	1910. Quantities. Ex-manufactory.	Ex-warehouse.	Totals.	Duty.
	Gallons.	Gallons.	Gallons.	$ cts.
Spirits	5,280	3,777,156	3,782,436	7,166,260 26
	*Imported	.....	.....	.....
Totals	5,280	3,777,156	3,782,436	7,166,260 26
Malt Liquor, the duty being paid on malt	38,558,201	.....	38,558,201	20,838 89
	Lbs.	Lbs.	Lbs.	
Malt	15,187	95,150,947	95,166,134	1,427,804 32
Cigars—	No.	No.	No.	
Foreign	.....	2,370,910	2,370,910	14,225 46
Canadian	.....	106,850	106,850	320 55
Under amended rates of duty (1909)	111,608,576	91,734,515	203,343,091	406,768 34
Totals	111,608,576	94,212,275	205,820,851	421,314 35
Cigarettes—				
Foreign	.....	.....	.....	6 00
Under amended rates of duty (1909)	440,847,938	10,427,200	451,095,138	1,092,300 07
Totals	440,847,938	10,247,200	451,095,138	1,092,306 07
	Lbs.	Lbs.	Lbs.	
Tobacco from Foreign leaf	.....	32,160	32,160	8,039 90
" Combination leaf	.....	1,193	1,193	59 65
Canadian twist	.....	20,673	20,673	1,033 65
Tobacco under amended rates of duty (1909)	10,187,431	7,427,199	17,614,630	880,731 56
Snuff " " "	292,623	.....	292,623	14,631 15
Totals	10,480,054	7,481,225	17,961,279	1,996,801 98
Raw leaf tobacco, Foreign	.....	13,729,875	13,729,875	3,864,607 88
Other materials	.....	1,269,027	1,269,027	203,044 32
Total duties on tobacco and cigarettes	.....	.....	.....	6,064,454 18
Vinegar	.....	.....	.....	74,710 75
Acetic acid	.....	.....	.....	5,937 14
Licenses, Spirits	.....	.....	.....	3,500 00
" Malt Liquor	.....	.....	.....	6,475 00
" Malt	.....	.....	.....	6,200 00
" Cigars	.....	.....	.....	11,225 00
" Tobacco	.....	.....	.....	3,145 00
" Bonded Manufactures	.....	.....	.....	3,100 00
" Acetic Acid	.....	.....	.....	100 00
Grand total duty	.....	.....	.....	15,215,064 89

* Spirits imported for use in the manufacture of crude fulminate, on which duty at a rate of 30 cents

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

to Excise Duty taken for consumption during the fiscal years ended March 31, the duty accrued thereon.

1911.				1912.			
Quantities.			Duty.	Quantities.			Duty.
Ex-manufactory.	Ex-warehouse.	Totals.		Ex-manufactory.	Ex-warehouse.	Totals.	
Gallons.	Gallons.	Gallons.	$ cts.	Gallons.	Gallons.	Gallons.	$ cts.
7,058	4,146,452	4,153,510	7,864,335 27	9,317	4,534,785	4,544,102	8,655,636 60
.....	151,387	151,387	45,416 21	.....	27,597	27,597	8,279 22
7,058	4,297,839	4,304,897	7,909,751 48	9,317	4,562,382	4,571,699	8,663,915 82
41,752,448	.....	41,752,448	46,818 01	47,518,647	.....	47,518,647	81,156 14
Lbs.	Lbs.	Lbs.		Lbs.	Lbs.	Lbs.	
.....	101,525,430	101,525,430	1,523,271 89	347,576	113,681,947	114,029,523	1,710,796 62
No.	No.	No.		No.	No.	No.	
.....	950,905	950,905	5,705 43	.....	176,825	176,825	1,060 95
.....	94,000	94,000	282 00	.....	.....	.....	.....
126,132,892	100,407,895	226,540,787	453,159 49	158,584,925	93,956,492	252,541,417	505,109 88
126,132,892	101,452,800	227,585,692	459,146 92	158,584,925	94,133,317	252,718,242	506,170 83
.....	.....	.....	.....	.....	.....	.....	.....
569,205,170	16,730,200	585,935,370	1,416,070 50	755,790,845	26,872,996	782,663,841	1,889,376 74
569,205,170	16,730,200	585,935,370	1,416,070 50	755,790,845	26,872,996	782,663,841	1,889,376 74
Lbs.	Lbs.	Lbs.		Lbs.	Lbs.	Lbs.	
.....	1,091	1,091	272 75	.....	168	168	42 00
.....	.....	.....	.....	.....	.....	.....	.....
.....	19,181	19,181	959 05	.....	17,098	17,098	854 90
10,999,196	7,500,886	18,500,082	925,004 28	12,905,153	7,962,559	20,867,712	1,043,385 75
382,968	.....	382,968	19,148 40	534,068	.....	534,068	26,703 40
11,382,164	7,521,158	18,903,322	2,361,454 98	13,439,221	7,979,825	21,419,046	2,960,362 79
.....	15,012,704	15,012,704	4,239,736 64	.....	17,491,373	17,491,373	4,947,640 17
.....	1,123,383	1,123,383	179,741 28	.....	1,372,144	1,372,144	219,543 04
.....	.....	.....	6,780,932 90	.....	.....	.....	8,127,546 00
.....	.....	.....	74,564 51	.....	.....	.....	81,945 41
.....	.....	.....	10,141 94	.....	.....	.....	11,149 95
.....	.....	.....	3,625 00	.....	.....	.....	3,750 00
.....	.....	.....	6,075 00	.....	.....	.....	5,600 00
.....	.....	.....	6,200 00	.....	.....	.....	5,750 00
.....	.....	.....	11,050 00	.....	.....	.....	11,475 00
.....	.....	.....	3,207 00	.....	.....	.....	3,230 00
.....	.....	.....	3,275 00	.....	.....	.....	2,775 00
.....	.....	.....	100 00	.....	.....	.....	150 00
.....	.....	.....	16,838,159 65	.....	.....	.....	19,215,410 77

er gallon was collected and afterwards refunded on the exportation of the fulminate.
p

W. J. GERALD,
Deputy Minister.

No. 13.—AMOUNTS deposited monthly to the credit of the Receiver General on

—	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
APRIL:—				
Excise	385,538 85	399,737 08	12,943 64	6,836 31
" Seizures		25 00		
Ferries	100 00			
Weights and Measures Inspection	870 65	868 85		
Gas Inspection	435 50			
Electric Light Inspection	309 00			
" Export Power Licenses	275 00		25 00	
Law Stamps (Exchequer Court)	225 15			
Patent Medicines Fees	313 00	71 00	12 00	16 00
Adulteration of Food Fees		5 00		
Fertilizers Fees	22 00	4 00		
Commercial Feeding Stuffs		2 00		
Methylated Spirits	4,636 29	2,238 30	25 21	75 90
Testing Milk Glasses Revenue	132 55			
Totals	392,857 99	602,951 23	13,005 85	6,928 21
MAY:—				
Excise	457,610 11	776,541 42	13,964 49	9,464 97
" Seizures	510 00	11 70		
Ferries	166 00	26 00	20 00	
Weights and Measures Inspection	3,950 06	1,981 25	79 25	225 05
" " Seizures	5 00			
Gas Inspection	2,286 00	565 50	23 75	26 25
Electric Light Inspection	2,669 00	948 25	171 25	54 75
Law Stamps (Supreme Court)	198 95			
" (Exchequer Court)	190 00			
" (Territorial Court, Yukon)				
Patent Medicines Fees	87 00	24 00	2 00	4 00
Adulteration of Food Fees		15 00		
Fertilizers Fees	6 00	3 00		
Methylated Spirits	5,557 77	1,538 21	52 88	
Testing Milk Glasses Revenue	286 10			
Totals	473,521 99	781,654 33	14,313 62	9,775 02
JUNE:				
Excise	452,271 51	800,346 89	15,158 50	10,328 88
" Seizures		220 00		
Weights and Measures Inspection	4,532 15	3,070 75	223 10	349 71
Gas Inspection	4,131 00	1,010 25	44 25	
Electric Light Inspection	3,330 50	1,132 25	173 25	254 50
" Export Power Licenses	50 00			
Law Stamps (Supreme Court)	218 20			
" (Exchequer Court)	1,068 75			
" (Territorial Court, Yukon)				
Patent Medicines Fees	60 00	19 00	3 00	3 00
Adulteration of Food Fees		5 00		
Fertilizers Fees	11 00			
Methylated Spirits	5,855 23	1,650 46	52 56	
Testing Milk Glasses Revenue	249 00			
Totals	471,777 34	807,454 60	15,654 66	10,936 09

account of Inland Revenues during the Year ended March 31, 1912.

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,076 16	78,012 10	28,776 28	12,510 91	42,209 67	239 67	1,167,880 67
...	...	...	...	...	...	25 00
...	...	...	...	...	...	100 00
...	...	185 15	392 43	100 00	...	2,417 08
...	...	...	...	...	...	435 50
...	...	...	...	...	...	309 00
...	...	...	...	...	...	300 00
...	...	...	...	...	...	225 15
4 00	10 00	3 00	4 00	16 00	...	449 00
...	...	...	...	...	...	5 00
...	...	4 00	...	...	...	30 00
...	...	...	...	...	...	2 00
...	...	...	...	109 28	...	7,084 98
...	...	...	...	...	...	132 55
1,080 16	78,022 10	28,968 43	12,907 34	42,434 95	239 67	1,179,395 93
1,022 29	77,356 88	36,351 06	12,021 94	81,281 70	531 38	1,466,146 24
...	...	...	...	...	...	521 70
...	...	...	...	...	...	212 00
7 75	1,063 30	283 30	780 52	287 15	...	8,657 63
...	...	...	...	...	...	5 00
...	245 00	...	...	175 75	...	3,322 25
2 25	703 75	370 25	433 75	1,046 50	...	6,399 75
...	...	...	...	...	...	198 95
...	...	...	...	...	...	190 00
...	...	...	...	...	174 50	174 50
...	2 00	1 00	2 00	2 00	...	124 00
...	...	...	...	...	...	15 00
...	...	...	...	...	...	9 00
...	197 72	...	...	...	...	7,346 58
...	...	...	...	...	...	286 10
1,032 29	79,568 65	37,005 61	13,238 21	82,793 10	705 88	1,493,608 70
875 36	79,952 91	33,393 93	14,468 82	70,362 12	567 96	1,477,726 88
...	...	...	...	...	...	220 00
44 10	1,068 85	467 90	531 50	403 00	...	10,691 06
...	255 00	...	...	468 25	...	5,908 75
35 25	602 75	250 75	219 25	1,226 75	...	7,225 25
...	...	...	...	...	...	50 00
...	...	...	...	...	...	218 20
...	...	...	...	...	...	1,068 75
...	...	...	...	...	167 75	167 75
...	2 00	...	1 00	1 00	...	89 00
...	5 00	...	...	...	...	10 00
...	...	...	...	...	...	11 00
...	532 88	...	...	...	...	8,091 13
...	...	...	...	...	...	249 00
954 71	82,419 39	34,112 58	15,220 57	72,461 12	735 71	1,511,726 77

No. 13.—Amounts deposited monthly to the credit of the Receiver General on

—	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
July:—				
Excise	462,448 26	727,642 36	17,048 03	7,851 21
" Seizures			10 00	
Ferries		10 00		
Weights and Measures Inspection	5,290 27	3,947 25	180 90	242 72
Gas Inspection	3,048 75	1,295 50	44 25	67 25
Electric Light Inspection	3,199 65	1,173 25	149 75	104 25
" Export Power Licenses		50 00		
Law Stamps (Exchequer Court)	95 00			
" (Territorial Court, Yukon)				
Patent Medicines Fees	45 00	14 00	4 00	5 00
Adulteration of Food Fees		5 00		
Fertilizers Fees				
Commercial Feeding Stuffs	7 00			
Methylated Spirits	4,433 31	1,357 97	26 83	
Testing Milk Glasses Revenue	714 30			
Totals	479,281 54	735,495 33	17,463 76	8,270 43
August:—				
Excise	470,613 86	870,247 36	16,845 86	8,931 27
" Seizures		67 50	85 00	
Ferries	50 00			
Weights and Measures Inspection	3,300 11	3,042 15	86 06	492 02
" " Seizures	5 00			
Gas Inspection	2,500 90	856 80	34 80	16 20
Electric Light Inspection	1,218 75	791 40	31 80	85 65
Law Stamps (Exchequer Court)	166 25			
" (Territorial Court, Yukon)				
Patent Medicines Fees	46 00	17 00	2 00	
Adulteration of Food Fees	5 00	5 00		
Fertilizers Fees	7 00	10 00		
Commercial Feeding Stuffs	7 00	9 00		
Electric Standards of Laboratory	5 50			
Methylated Spirits	5,066 29	2,771 24	26 96	71 53
Totals	482,991 66	877,817 45	17,112 48	9,599 67
September:—				
Excise	512,952 46	898,096 59	23,923 72	9,771 46
" Seizures		46 00	50 00	
Ferries	30 00			
Weights and Measures Inspection	3,312 74	3,136 10	146 25	420 88
" " Seizures	10 00			
Gas Inspection	2,276 80	670 00	18 00	24 60
Electric Light Inspection	2,118 15	641 30	59 85	74 10
Law Stamps (Supreme Court)	74 10			
" (Exchequer Court)	204 25			
" (Territorial Court, Yukon)				
Patent Medicines Fees	39 00	13 00		4 00
Fertilizers Fees	2 00			2 00
Commercial Feeding Stuffs	2 00			
Electric Standards of Laboratory	13 25			
Methylated Spirits	6,194 90	1,298 23	28 52	
Testing Milk Glasses Revenue	157 05			
Totals	527,386 70	903,901 22	24,226 34	10,297 04

account of Inland Revenues during the Year ended March 31, 1912—*Continued.*

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts
975 41	89,814 09	44,034 19	14,894 14	77,058 15	739 98	1,442,505 82
...	...	...	...	...	...	10 00
...	...	...	...	...	...	10 00
38 22	853 85	313 25	573 47	275 90	...	11,715 83
12 00	238 75	...	...	414 25	...	5,120 75
...	893 50	568 50	208 50	1,072 00	...	7,369 40
...	...	...	...	...	...	50 00
...	...	...	...	...	...	95 00
...	...	...	...	...	179 00	179 00
...	5 00	1 00	...	3 00	...	77 00
...	...	...	...	...	...	5 00
...	...	...	...	1 00	...	1 00
...	...	...	...	7 00	...	14 00
...	51 91	...	...	...	...	5,870 02
...	...	...	...	...	...	714 30
1,025 63	91,857 10	44,916 94	15,676 11	78,831 30	918 98	1,473,737 12
911 58	91,827 69	38,043 25	17,337 08	78,686 35	1,266 20	1,594,710 50
...	...	...	...	...	...	152 50
...	...	...	...	...	...	50 00
70 33	997 20	341 35	596 48	366 10	...	9,291 80
...	...	...	...	...	...	5 00
...	196 00	...	...	260 20	...	3,864 90
14 55	199 20	47 10	80 55	656 25	...	3,125 25
...	...	...	...	...	...	166 25
...	...	...	...	...	339 25	339 25
...	4 00	1 00	1 00	4 00	...	75 00
...	...	10 00	5 00	...	...	25 00
...	...	...	...	...	...	17 00
...	...	2 00	...	...	...	18 00
...	...	...	...	...	...	5 50
...	326 36	...	...	104 60	...	8,369 98
996 46	93,550 45	38,444 70	18,020 11	80,077 50	1,605 45	1,620,215 93
1,007 60	110,741 01	38,634 76	20,017 64	67,418 90	1,853 69	1,684,417 83
...	...	...	...	...	...	96 00
...	...	...	...	...	...	30 00
112 72	740 40	359 05	402 77	222 75	...	8,853 66
...	...	...	...	...	...	10 00
...	111 20	...	...	254 20	...	3,354 80
6 00	354 75	234 30	225 30	440 40	...	4,154 15
...	...	...	...	...	...	74 10
...	...	...	...	...	...	204 25
...	...	...	...	...	260 25	260 25
1 00	3 00	2 00	...	2 00	...	64 00
...	...	...	...	...	...	4 00
...	...	...	...	...	...	2 00
...	...	...	...	...	...	13 25
...	274 37	...	...	...	...	7,796 02
...	...	...	...	...	...	157 05
1,127 32	112,224 73	39,230 11	20,645 71	68,338 25	2,113 94	1,709,491 36

No. 13.—AMOUNTS deposited monthly to the credit of the Receiver General on

—	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
OCTOBER :—				
Excise	525,970 72	933,147 50	22,214 00	8,684 77
" Seizures	50 00			
Ferries	1 00			
Weights and Measures Inspection	3,756 34	1,988 70	158 64	45 48
Gas Inspection	2,845 20	683 00	67 80	37 40
Electric Light Inspection	2,232 95	498 75	82 35	87 90
Law Stamps (Supreme Court)	175 10			
" (Exchequer Court)	574 75			
" (Territorial Court, Yukon)				
Patent Medicines Fees	23 00	5 00		2 00
Fertilizers Fees	24 00			
Commercial Feeding Stuffs				
Electric Standards of Laboratory	12 60			
Methylated Spirits	6,035 01	1,504 86	85 89	
Testing Milk Glasses Revenue	71 75			
Casual Revenue	25 00			
Totals	541,797 42	937,827 81	22,608 77	8,857 55
NOVEMBER :				
Excise	537,836 74	959,330 83	21,517 40	12,361 86
" Seizures		31 45		
Ferries	50 00			
Weights and Measures Inspection	4,527 83	2,426 20	586 86	70 18
Gas Inspection	2,575 80	894 20	18 00	38 00
Electric Light Inspection	2,860 60	508 20	109 80	158 40
Law Stamps (Supreme Court)	78 90			
" (Exchequer Court)	302 10			
" (Territorial Court, Yukon)				
Patent Medicines Fees	35 00	9 00	5 00	3 00
Adulteration of Food Fees		13 00		
Fertilizers Fees			7 00	7 00
Commercial Feeding Stuffs		2 00		
Methylated Spirits	5,732 88	1,777 19		
Testing Milk Glasses Revenue	96 60			
Totals	554,096 45	964,992 07	22,244 06	12,638 44
DECEMBER :—				
Excise	553,774 58	1,002,688 82	20,979 45	7,119 82
" Seizures	200 00	83 30		
Weights and Measures Inspection	4,521 63	2,365 75	326 28	179 97
Gas Inspection	2,446 10	929 80	72 80	7 80
Electric Light Inspection	1,835 10	760 40	135 00	100 05
" Export Power Licenses	25 00	25 00		
Law Stamps (Supreme Court)	80 90			
" (Exchequer Court)	375 25			
" (Territorial Court, Yukon)				
Patent Medicines Fees	9 00	6 00	1 00	
Adulteration of Food Fees			5 00	
Fertilizers Fees	148 00	29 00	30 00	
Commercial Feeding Stuffs	121 60	20 00		5 00
Electric Standards of Laboratory	15 25			
Methylated Spirits	4,629 82	2,176 78	53 33	
Totals	568,181 63	1,009,024 85	21,602 86	7,412 64

account of Inland Revenues during the Year ended March 31, 1912—*Continued.*

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,136 15	121,163 93	46,405 05	20,196 80	77,298 18	1,266 09	1,757,483 28
...	...	...	...	...	...	50 00
...	...	...	...	...	...	1 00
40 60	725 50	278 75	326 98	258 35	...	7,579 34
9 60	317 60	...	...	345 40	...	4,306 00
13 20	468 30	191 10	129 45	1,066 65	...	4,770 65
...	...	...	...	...	...	175 10
...	...	...	...	...	...	574 75
...	...	...	...	...	180 25	180 25
...	1 00	3 00	...	2 00	...	36 00
...	...	...	...	...	...	24 00
...	...	...	...	11 00	...	11 00
...	...	...	...	...	...	12 60
...	37 22	...	...	105 07	...	7,768 05
...	...	...	...	...	...	71 75
...	...	...	...	...	...	25 00
1,199 55	122,713 55	46,877 90	20,653 23	79,086 65	1,446 34	1,783,068 77
1,161 40	130,064 71	49,152 57	26,284 49	83,747 17	71 89	1,821,529 06
...	...	...	...	...	...	31 45
...	...	...	...	...	...	50 00
11 32	667 60	584 60	644 91	389 90	...	9,909 40
2 80	174 20	...	...	285 60	...	3,988 60
27 60	603 45	462 25	751 95	847 05	...	6,329 30
...	...	...	...	...	...	78 90
...	...	...	...	...	...	302 10
...	...	...	...	...	130 00	130 00
...	2 00	2 00	3 00	2 00	...	61 00
...	...	...	...	...	...	13 00
...	...	...	...	5 00	...	19 00
...	...	...	...	...	...	2 00
...	176 32	...	...	111 85	...	7,798 24
...	...	...	...	...	...	96 60
1,203 12	131,688 28	50,201 42	27,684 35	85,388 57	201 89	1,850,338 65
1,108 01	129,134 38	51,300 22	25,832 84	80,791 81	...	1,872,729 93
...	...	...	...	...	...	283 30
34 40	681 00	522 25	494 99	375 60	...	9,502 87
...	206 40	...	...	314 40	...	3,977 30
9 60	797 10	544 20	...	925 50	...	5,046 95
...	...	...	...	...	...	50 00
...	...	...	...	...	...	80 90
...	...	...	...	...	...	375 25
...	...	...	...	...	53 50	53 50
...	...	...	...	1 00	...	17 00
...	...	...	...	...	...	5 00
...	5 00	10 00	...	5 00	...	227 00
...	10 00	...	...	5 00	...	161 00
...	...	...	...	...	...	15 25
...	280 40	...	...	...	...	7,140 33
1,152 01	131,114 28	52,377 67	26,327 83	82,418 31	53 50	1,899,665 58

No. 13.—AMOUNTS deposited monthly to the credit of the Receiver General on

—	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
JANUARY:—				
Excise	471,103 64	750,000 90	17,013 52	8,194 11
" Seizures	.....	300 00	50 00	.....
Weights and Measures Inspection	4,088 22	1,933 80	117 05	229 65
Gas Inspection	2,615 00	1,336 60	84 60	48 00
Electric Light Inspection	2,791 55	833 55	105 60	151 20
Law Stamps (Supreme Court)	69 70	.....	.....	.....
" (Exchequer Court)	266 00	.....	.....	.....
" (Territorial Court, Yukon)	.....	.....	.....	.....
Patent Medicines Fees	168 00	30 00	5 00	9 00
Adulteration of Food Fees	5 00	.....	.....	.....
Fertilizers Fees	148 00	9 00	.....	9 00
Commercial Feeding Stuffs	35 00	10 00	.....	.....
Electric Standards of Laboratory	4 50	.....	.....	.....
Methylated Spirits	4,611 49	1,907 79	25 34	73 06
Totals	485,906 10	756,361 64	17,401 11	8,714 02
FEBRUARY:—				
Excise	457,484 18	923,466 61	16,685 92	7,141 31
" Seizures	.....	19 19	50 00	.....
Weights and Measures Inspection	2,755 26	882 75	209 88	161 45
Gas Inspection	2,200 30	1,196 30	67 20	7 20
Electric Light Inspection	2,605 40	597 20	127 65	47 55
Law Stamps (Supreme Court)	118 20	.....	.....	.....
" (Exchequer Court)	147 25	.....	.....	.....
" (Territorial Court, Yukon)	.....	.....	.....	.....
Patent Medicines Fees	274 00	37 00	7 00	9 00
Adulteration of Food Fees	5 00	.....	.....	.....
Fertilizers Fees	54 00	17 00	6 00	9 00
Commercial Feeding Stuffs	25 00	7 00	.....	.....
Methylated Spirits	6,350 32	2,678 87	52 17	31 14
Testing Milk Glasses Revenue	47 55	.....	.....	.....
Casual Revenue	.....	.....	.....	.....
Totals	472,066 46	928,901 92	17,205 82	7,406 65
MARCH:—				
Excise	533,687 83	1,037,959 08	20,598 04	9,149 38
" Seizures	.....	200 60	60 00	100 00
Ferries	11 00	305 00	.....	.....
Weights and Measures Inspection	6,398 61	3,550 55	326 48	187 49
Gas Inspection	4,542 60	2,777 60	146 60	84 20
Electric Light Inspection	3,683 55	956 30	273 90	199 50
Law Stamps (Supreme Court)	138 80	.....	.....	.....
" (Exchequer Court)	593 75	.....	.....	.....
" (Territorial Court, Yukon)	.....	.....	.....	.....
Patent Medicines	377 00	94 00	12 00	21 00
Adulteration of Food Fees	.....	.....	.....	5 00
Fertilizers Fees	57 00	6 00	.....	2 00
Commercial Feeding Stuffs	7 00	.....	.....	.....
Testing Milk Glasses Revenue	141 20	.....	.....	.....
Methylated Spirits	6,764 11	2,501 40	51 06	.....
Totals	556,402 45	1,048,350 53	21,468 08	9,748 57

account of Inland Revenues during the Year ended March 31, 1912—*Concluded.*

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,293 40	108,044 10	54,604 68	21,182 20	69,420 63	.....	1,500,857 18
.....	.....	.....	.....	.....	.....	350 00
29 21	680 10	376 55	514 22	156 20	.....	8,125 00
11 00	232 40	64 80	.....	299 80	.....	4,692 20
11 40	760 65	269 70	89 55	697 45	.....	5,710 65
.....	.....	.....	.....	.....	.....	69 70
.....	.....	.....	.....	.....	.....	266 00
.....	.....	.....	.....	.....	100 00	100 00
1 00	7 00	.....	1 00	9 00	.....	230 00
.....	.....	.....	5 00	.....	.....	10 00
.....	.....	2 00	.....	.....	.....	168 00
.....	5 00	16 00	.....	5 00	.....	71 00
.....	.....	.....	.....	.....	.....	4 50
.....	57 42	.....	.....	124 89	.....	6,799 99
1,346 01	109,786 67	55,333 73	21,791 97	70,712 97	100 00	1,527,454 22
730 28	90,279 22	46,905 32	17,337 99	60,629 89	.....	1,620,660 72
.....	.....	.....	.....	.....	.....	69 19
9 10	742 20	480 55	297 55	223 85	.....	5,762 59
.....	67 20	.....	.....	215 40	.....	3,753 60
8 40	1,028 70	430 20	172 65	793 50	.....	5,811 25
.....	.....	.....	.....	.....	.....	118 20
.....	.....	.....	.....	.....	.....	147 25
.....	.....	.....	.....	.....	36 50	36 50
1 00	9 00	1 00	2 00	7 00	.....	347 00
.....	10 00	.....	.....	.....	.....	15 00
.....	.....	.....	.....	5 00	.....	91 00
.....	.....	.....	.....	13 00	.....	45 00
.....	35 48	.....	.....	105 34	.....	9,253 32
.....	.....	.....	.....	.....	.....	47 55
.....	5 40	.....	.....	.....	.....	5 40
748 78	92,177 20	47,817 07	17,810 19	61,992 98	36 50	1,646,163 57
1,306 23	118,371 11	55,715 20	21,566 70	100,597 02	257 42	1,899,208 01
.....	.....	.....	.....	150 00	.....	510 60
.....	.....	.....	.....	.....	.....	316 00
16 25	1,403 30	421 45	465 57	489 45	4 50	13,263 65
13 60	365 00	60 00	.....	642 00	.....	8,631 60
12 00	1,897 15	901 80	419 70	1,464 60	.....	9,808 50
.....	.....	.....	.....	.....	.....	138 80
.....	.....	.....	.....	.....	.....	593 75
.....	.....	.....	.....	.....	107 00	107 00
2 00	13 00	6 00	3 00	15 00	.....	543 00
.....	.....	.....	.....	.....	.....	5 00
.....	.....	.....	.....	16 00	.....	81 00
.....	.....	.....	.....	7 00	.....	14 00
.....	.....	.....	.....	.....	.....	141 20
.....	209 57	.....	.....	239 12	.....	9,765 26
1,350,08	122,259 13	57,104 45	22,454 97	103,620 19	368 92	1,943,127 37

RECAPITULATION of Statement No. 13 showing the

—	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
Excise	5,821,292 74	10,279,205 44	218,892 66	105,835 35
" Seizures	760 00	1,004 74	305 00	100 00
Ferries	408 00	341 00	20 00	.....
Weights and Measures Inspection	47,303 87	29,194 10	2,440 75	2,604 60
" " Seizures	20 00	.....	.....	.....
Gas Inspection	31,903 95	12,215 55	622 05	356 90
Electric Light Inspection	28,855 20	8,780 85	1,420 20	1,317 85
Electric Light Export Licenses	350 00	75 00	25 00	.....
Electrical Standard of Laboratory	51 10	.....	.....	.....
Law Stamps (Supreme Court)	1,152 85	.....	.....	.....
" Exchequer Court)	4,208 50	.....	.....	.....
" (Territorial " Yukon)	.....	.....	.....	.....
Patent Medicines Fees	1,476 00	339 00	53 00	76 00
Adulteration of Food	15 00	48 00	5 00	5 00
Fertilizers Fees	479 00	78 00	43 00	29 00
Commercial Feeding Stuffs	204 00	50 00	.....	5 00
Methylated Spirits	65,867 42	23,401 30	480 75	254 63
Testing Milk Glasses Revenue	1,896 10	.....	.....	.....
Casual Revenue	25 00	.....	.....	.....
Totals	6,006,267 73	10,354,732 98	224,307 41	110,584 33

INLAND REVENUE DEPARTMENT,

OTTAWA, June 1, 1912.

total revenues for the year ended March 31, 1912.

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
12,603 87	1,224,762 13	523,316 51	223,651 55	889,501 59	6,794 28	19,305,856 12
.....	.....	.....	.....	150 00	.....	2,319 74
.....	.....	.....	.....	.....	.....	769 00
414 00	9,623 30	4,615 15	6,021 39	3,548 25	4 50	105,769 91
.....	.....	.....	.....	.....	.....	20 00
49 00	2,408 75	124 80	.....	3,675 25	.....	51,356 25
140 25	8,309 30	4,270 15	2,730 65	10,236 65	.....	66,060 10
.....	.....	.....	.....	.....	.....	450 00
.....	.....	.....	.....	.....	.....	51 10
.....	.....	.....	.....	.....	.....	1,152 85
.....	.....	.....	.....	.....	.....	4,208 50
.....	.....	.....	.....	.....	1,728 00	1,728 00
9 00	58 00	20 00	17 00	64 00	.....	2,112 00
.....	15 00	10 00	10 00	.....	.....	108 00
.....	5 00	16 00	.....	32 00	.....	682 00
.....	15 00	18 00	.....	48 00	.....	340 00
.....	2,179 65	.....	.....	900 15	.....	93,083 90
.....	.....	.....	.....	.....	.....	1,896 10
.....	5 40	.....	.....	.....	.....	30 40
13,216 12	1,247,381 53	532,390 61	232,430 59	908,155 89	8,526 78	19,637,993 97

W. J. GERALD,
Deputy Minister.

No. 14.—Comparative Statement

		April.	May.	June.	July.	August.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Spirits	1910-11	607,673 27	599,498 23	550,213 51	541,966 19	650,489 55
	1911-12	583,553 00	626,728 56	621,869 53	583,228 55	716,315 00
Increase		.....	27,230 33	71,656 02	41,262 36	65,825 45
Decrease		24,120 27	.....	.....	.....	.....
Malt Liquor	1910-11	8,144 40	1,486 10	3,391 38	5,091 32	4,433 00
	1911-12	9,837 90	8,538 90	5,937 10	7,708 24	7,306 45
Increase		1,693 50	7,052 80	2,545 72	2,616 92	2,873 45
Decrease		.....	.....	.....	.....	.....
Malt	1910-11	133,987 73	136,117 29	134,657 36	143,497 62	145,401 77
	1911-12	138,733 90	168,271 19	171,745 94	165,009 12	167,747 71
Increase		4,746 17	32,153 90	37,088 58	21,511 50	22,345 94
Decrease		.....	.....	.....	.....	.....
Tobacco	1910-11	608,716 70	546,745 40	550,934 95	467,279 83	630,687 98
	1911-12	605,284 78	634,908 65	604,423 78	615,672 98	723,615 11
Increase		.....	88,163 25	53,488 83	148,395 15	92,927 13
Decrease		3,431 92	.....	.....	.....	.....
Cigars	1910-11	46,490 48	39,263 13	41,010 46	38,531 80	40,846 86
	1911-12	44,486 57	41,616 08	43,804 98	41,679 29	45,470 87
Increase		.....	2,352 95	2,794 52	3,147 49	4,624 01
Decrease		2,003 91	.....	.....	.....	.....
Manufactures in Bond	1910-11	9,408 78	8,890 18	7,840 77	5,588 70	9,167 02
	1911-12	8,240 32	8,378 61	7,166 82	6,687 27	10,659 21
Increase		.....	.....	.....	1,128 57	1,492 19
Decrease		1,168 46	511 57	673 95	.....	.....
Acetic Acid	1910-11	763 60	972 66	580 05	533 56	735 83
	1911-12	1,075 43	856 10	786 14	1,235 97	1,229 35
Increase		311 83	.....	206 09	702 41	493 52
Decrease		.....	116 56	.....	.....	.....
Seizures	1910-11	56 80	406 03	621 50	377 70	56 30
	1911-12	36 95	509 75	220 00	10 00	152 50
Increase		.....	103 72	.....	.....	96 20
Decrease		19 85	.....	401 50	367 70	.....
Other Receipts	1910-11	16,011 85	2,976 68	4,098 85	4,772 75	5,212 58
	1911-12	19,469 20	5,954 58	7,607 10	4,067 85	4,636 09
Increase		3,457 35	2,977 90	3,508 25	.....	.....
Decrease		.....	.....	.....	704 90	576 49
Total Revenue	1910-11	1,431,253 61	1,366,355 70	1,293,348 83	1,207,609 47	1,487,030 89
	1911-12	1,410,718 05	1,495,762 42	1,463,561 39	1,425,299 27	1,677,132 29
Total Increase		.....	159,406 72	170,212 56	217,689 80	190,101 40
" Decrease		20,535 56	.....	.....	.....	.....

Inland Revenue Department,
Ottawa, June 1, 1912.

REVENUES.

of Receipts for 1910-11 and 1911-12.

September.	October.	November.	December.	January.	February.	March.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
719,769 23	726,940 05	811,338 80	914,187 12	577,963 99	576,831 54	636,505 00	7,913,376 48
777,877 90	820,686 73	906,453 56	1,001,686 54	695,580 57	678,737 26	654,948 62	8,667,665 82
58,108,67	93,746 68	95,114 76	87,499 42	117,616 58	101,905 72	18,443 62	754,289 34
.....	.....	.....	.....	.....	.....	.....	.....
4,246 95	2,959 42	5,023 88	4,714 25	2,340 78	2,275 03	8,786 50	52,893 01
8,219 50	5,272 43	7,004 93	7,195 93	4,986 98	7,012 60	7,735 18	86,756 14
3,972 55	2,313 01	1,981 05	2,481 68	2,646 20	4,737 57	.....	33,863 13
.....	.....	.....	.....	.....	.....	1,051 32	.....
127,115 26	107,385 11	128,226 29	114,777 45	102,115 72	109,997 57	146,192 72	1,529,471 89
132,674 53	119,831 11	128,578 18	118,332 26	130,759 28	122,465 05	152,398 35	1,716,546 62
5,559 27	12,446 00	351 89	3,554 81	28,643 56	12,467 48	6,205 63	187,074 73
.....	.....	.....	.....	.....	.....	.....	.....
587,823 81	587,546 59	625,906 85	489,766 79	531,983 36	569,954 58	586,793 06	6,784,139 90
684,428 21	747,433 71	773,481 11	601,134 29	679,746 37	764,978 57	695,668 44	8,130,776 00
96,604 40	159,887 12	147,574 26	111,367 50	147,763 01	195,023 99	108,875 38	1,346,636 10
.....	.....	.....	.....	.....	.....	.....	.....
40,306 96	39,402 76	42,453 44	39,960 16	31,336 66	30,967 89	39,626 32	470,196 92
45,293 49	44,522 57	47,292 17	44,277 15	36,506 18	39,618 26	43,078 22	517,645 83
4,986 53	5,119 81	4,838 73	4,316 99	5,169 52	8,650 37	3,451 90	47,448 91
.....	.....	.....	.....	.....	.....	.....	.....
11,801 51	8,520 73	4,898 54	1,797 41	1,750 56	2,471 70	5,733 61	77,839 51
10,601 73	9,641 63	5,434 55	4,712 43	4,095 81	3,064 96	6,037 07	84,720 41
.....	1,120 90	536 01	2,915 02	2,345 25	593 26	303 46	6,880 90
1,199 78	.....	.....	.....	.....	.....	.....	.....
1,494 59	1,434 51	1,728 77	.....	583 31	573 90	841 16	10,241 94
1,264 73	2,377 59	1,269 66	189 12	490 24	173 80	351 82	11,299 95
.....	943 08	.....	189 12	.....	.....	.....	1,058 01
229 86	.....	459 11	.....	93 07	400 10	489 34	.....
2,578 55	206 65	60 26	463 25	168 60	359 84	249 49	5,604 97
146 00	.....	41 45	273 30	400 00	44 19	485 60	2,319 74
.....	.....	.....	.....	231 40	.....	236 11	.....
2,432 55	206 65	18 81	189 95	.....	315 65	.....	3,285 23
4,960 37	8,443 38	6,630 51	4,588 97	8,843 25	2,646 12	6,603 22	75,788 53
7,861 25	5,642 04	9,338 74	5,406 60	6,776 61	6,866 71	7,032 34	90,659 11
2,900 88	.....	2,708 23	817 63	.....	4,220 59	429 12	14,870 58
.....	2,801 34	.....	.....	2,066 64	.....	.....	.....
1,500,097 23	1,482,839 20	1,626,267 34	1,570,255 40	1,257,086 23	1,296,078 17	1,431,331 08	16,919,553 15
1,668,367 34	1,755,407 81	1,878,894 35	1,783,207 62	1,559,342 04	1,622,961 40	1,567,735 64	19,308,389 62
168,270 11	272,568 61	252,627 01	212,952 22	302,255 81	326,883 23	136,404 56	2,388,836 47
.....	.....	.....	.....	.....	.....	.....	.....

W. J. GERALD,
Deputy Minister

No. 15.—REFUNDS of Revenue during the fiscal year ended March 31, 1912

EXCISE.

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
		1911.			$ cts.	$ cts.
Spirits	Parke, Davis & Co	April 18	Windsor	Refunded under Revised Statutes, Cap. 34, sec 238	269 07	
	" "	May 8	"	" " 34 " 238	122 23	
	Eastern Township Bank for A. L. Howard & Co	" 11	Sherbrooke	" " 34 " 238	8,279 22	
	Parke, Davis & Co	" 15	Windsor	" " 34 " 238	413 61	
	" "	" 26	"	" " 34 " 238	202 48	
	" "	June 2	"	" " 34 " 238	117 22	
	" "	" 14	"	" " 34 " 238	351 03	
	" "	" 20	"	" " 34 " 238	205 71	
	" "	July 4	"	" " 34 " 238	314 36	
	" "	" 14	"	" " 34 " 238	142 16	
	" "	" 14	"	" " 34 " 238	160 55	
	" "	" 28	"	" " 34 " 238	315 96	
	" "	August 18	"	" " 34 " 238	1,136 07	
	" "	" 21	"	" " 34 " 238	175 12	
	" "	Sep. 5	"	" " 34 " 238	614 60	
	" "	" 8	"	" " 34 " 238	450 67	
	" "	" 12	"	" " 34 " 238	119 90	
	" "	Oct. 2	"	" " 34 " 238	44 76	
	" "	" 6	"	" " 34 " 238	626 63	
	" "	" 14	"	" " 34 " 238	102 05	
	Elliott, Alexander	" 16	Peterborough	" " 34 " 238	537 83	
	Hamilton, J. S & Co	" 16	Brantford	" " 34 " 238	180 80	
	Parke, Davis & Co	" 16	Windsor	" " 34 " 238	293 37	
	" "	" 27	"	" " 34 " 238	243 78	
	" "	Nov. 8	"	" " 34 " 238	274 70	
	" "	" 11	"	" " 34 " 238	360 32	
	" "	" 20	"	" " 34 " 238	173 43	
	" "	" 28	"	" " 34 " 238	747 24	
	" "	Dec. 4	"	" " 34 " 238	59 52	
	" "	" 16	"	" " 34 " 238	430 25	
	" "	" 28	"	" " 34 " 238	427 80	
		1912.				
	" "	Jan. 15	"	" " 34 " 238	203 66	
	" "	" 22	"	" " 34 " 238	373 36	
	" "	" 29	"	" " 34 " 238	143 15	

	" "	Feb.	5..	"	"	"	34	"	238....	38 13	
	" "	"	12..	"	"	"	34	"	238....	143 09	
	" "	"	19..	"	"	"	34	"	238....	958 80	
	" "	"	26..	"	"	"	34	"	238....	84 07	
	" "	Mar.	11..	"	"	"	34	"	238....	91 71	
	" "	"	15..	"	"	"	34	"	238....	962 58	
	" "	"	25..	"	"	"	34	"	238....	67 14	
	" "	"	25..	"	"	"	34	"	238....	123 32	
	" "	"	29..	"	"	"	34	"	238....	178 47	
	" "	Apr.	19..	"	"	"	34	"	238....	708 53	
										21,969 28	
						Less refunded by Parke, Davis & Co.....				74 90	
Malt.	Strathcona, B. & M. Co., Ltd	May	8..	Calgary	Refunded under Revised Statutes, cap		29	sec.	78....	296 25	21,894 38
	Golden West Brewg. Co., The	"	8..	"	"	"	29	"	78....	156 75	
	Edmonton B. & M. Co., Ltd., The	"	8..	"	"	"	29	"	78....	431 25	
	Lethbridge B. & M. Co., Ltd., The	"	8..	"	"	"	29	"	78....	835 50	
	Calgary B. & M. Co., Ltd., The	"	8..	"	"	"	29	"	78....	2,304 44	
	Silver Spring Brewery Ltd..	"	15..	Sherbrooke	"	"	29	"	78....	667 98	
	Union Brewg. Co., Ltd., The	"	15 .	Victoria	"	"	29	"	78 ...	563 58	
	Vancouver Breweries, Ltd., The	"	15..	Vancouver	"	"	29	"	78....	1,691 34	
	Canadian B. & M. Co., Ltd..	"	15..	"	"	"	29	"	78....	281 12	
	Kerrigan, Jas	"	15..	"	"	"	29	"	78....	3 00	
	Fernie-Fort Steele Brewg. Co. The	"	15..	"	"	"	29	"	78....	84 87	
	Hartinger, F	"	15..	"	"	"	29	"	78....	30 00	
	Scherbauer, L	"	15..	"	"	"	29	"	78....	10 10	
	Elk Valley Brewg. Co..	"	15..	"	"	"	29	"	78....	81 00	
	Mueller & Hesse	"	15..	"	"	"	29	"	78...	7 50	
	Nelson Brewg. Co	"	15..	"	"	"	29	"	78....	228 00	
	Phoenix Brewg. Co., Ltd	"	15..	"	"	"	29	"	78....	150 00	
	Entreprise Brewg. Co., The.	"	15..	"	"	"	29	"	78....	87 74	
	Henderson, H	"	15..	"	"	"	29	"	78....	79 11	
	Mueller, August	"	15..	"	"	"	29	"	78....	120 00	
	Nelson, Nels	"	15..	"	"	"	29	"	78....	234 00	
	Vancouver Breweries, Ltd., The	"	16..	"	"	"	34	"	238 ...	394 50	
	Hoeschen Wentzler Brewg. Co., Ltd,. The	"	16..	Moosejaw	"	"	34	"	238....	137 25	
	Canadian Brewg. & Malting Co., Ltd	"	18..	Vancouver	"	"	34	"	238....	940 50	
	Boswell & Bros., Ltd	"	18..	Quebec	"	"	29	"	78 ...	743 40	
	Drewry, E. L	"	18..	Winnipeg	"	"	29	"	78.. .	613 74	
	Shea, P	"	18..	"	"	"	29	"	78....	918 97	

No. 15.—Refunds of Revenue—*Continued.*

EXCISE—*Continued.*

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
		1911.			$ cts.	$ cts.
Malt—*(continued)*..	Canada Malting Co., Ltd., The	May 18..	Winnipeg	Refunded under Revised Statutes, cap. 29 sec. 78	4,028 33	
	Brandon Brewg. Co., The	" 18..	"	" " 29 " 78	329 74	
	Empire Brewg. Co., Ltd., The	" 18..	"	" " 29 " 78	329 66	
	Rice Maltg. Co. of Can., The	" 18..	"	" " 29 " 78	189 10	
	Lethbridge B.&.M. Co., Ltd., The	" 22..	Calgary	" " 34 " 238	93 00	
	Edmonton B. & M. Co., Ltd., The	June 2..	"	" " 34 " 238	156 00	
	Hoeschen Wentzler Brewg. Co., Ltd., The	" 10..	Moosejaw	" " 34 " 238	81 75	
	Lethbridge B. & M. Co., Ltd., The	" 12..	Calgary	" " 34 " 238	279 00	
	Vancouver Breweries, Ltd., The	" 14.	Vancouver	" " 34 " 238	900 00	
	Canadian Brewg. & Malting Co., Ltd	" 14..	"	" " 34 " 238	513 00	
	Proteau & Carignan	" 21..	Quebec	" " 29 " 78	604 50	
	Manitoba B. &. M. C., The..	" 21..	Winnipeg	" " 29 " 78	30 00	
	Vancouver Breweries, Ltd., The	July 13..	Vancouver	" " 34 " 238	360 00	
	Canadian Brewg. & Malting Co. Ltd	" 13..	"	" " 34 " 238	427 50	
	Hoeschen Wentzler Brewg. Co., Ltd., The	" 13..	Moosejaw	" " 34 " 238	81 00	
	Edmonton B. & M. Co., Ltd., The	" 25..	Calgary	" " 34 " 238	519 00	
	Copland Brewg. Co., Ltd	Aug. 2..	Toronto	" " 34 " 238	99 29	
	Carling, T. H	" 2..	London	" " 34 " 238	50 05	
	Vancouver Breweries, Ltd., The	Aug. 12..	Vancouver	" " 34 " 238	540 00	
	Canadian B. & M. Co., Ltd..	" 12..	"	" " 34 " 238	485 25	
	Lethbridge B. & M. Co., Ltd. The	" 12..	Calgary	" " 34 " 238	186 00	
	Hoeschen Wentzler Brewing Co. Ltd., The	" 12..	Moosejaw	" " 34 " 238	109 12	
	Lethbridge B. & M. Co., Ltd., The	" 19..	Calgary	" " 34 " 238	183 00	

Hoeschen Wentzler Brewing Co., Ltd., The	Sept.	12..	Moosejaw	"	"	34	" 238	104 77
Lethbridge B. & M. Co., Ltd., The	"	12..	Calgary	"	"	34	" 238	180 00
Nelson Nels	"	18..	Vancouver	"	"	34	" 238	30 00
Canadian B. & M. Co., Ltd.	"	18..	"	"	"	34	" 238	342 00
Vancouver Breweries, Ltd., The	"	18..	"	"	"	34	" 238	780 00
Le Roi Brewing Co., The	"	20..	"	"	"	34	" 238	21 00
Edmonton B. & M. Co., Ltd., The	"	22..	Calgary	"	"	34	" 238	432 00
Lethbridge B. & M. Co., Ltd., The	Oct.	10..	"	"	"	34	" 238	456 00
Hoeschen Wentzler Brewing Co., Ltd., The	"	14..	Moosejaw	"	"	34	" 238	108 00
Le Roi Brewing Co., The	"	14..	Vancouver	"	"	34	" 238	21 00
Canadian B. & M. Co., Ltd.	"	16..	"	"	"	34	" 238	427 50
Vancouver Breweries, Ltd., The	"	16..	"	"	"	34	" 238	720 00
Bowie & Co.'s Brewery, Ltd.	"	16..	Prescott	"	"	34	" 238	105 66
St. Lawrence Brewery, Ltd.	"	16..	"	"	"	34	" 238	113 25
Bauer, A.	"	16..	Guelph	"	"	34	" 238	3,407 25
National Breweries, Ltd., The	Nov.	14..	Montreal	"	"	34	" 238	108 00
Vancouver Breweries, Ltd., The	"	15..	Vancouver	"	"	34	" 238	360 00
Canadian B. & M. Co., Ltd.	"	15..	"	"	"	34	" 238	256 50
Hoeschen Wentzler Brewing Co., Ltd., The	"	15..	Moosejaw	"	"	34	" 238	108 00
Edmonton B. & M. Co., Ltd., The	"	20..	Calgary	"	"	34	" 238	288 00
Lethbridge B. & M. Co., Ltd., The	"	28..	"	"	"	34	" 238	145 50
Lethbridge B. & M. Co., Ltd., The	Dec.	12..	"	"	"	34	" 238	139 50
Hoeschen Wentzler Brewing Co., Ltd., The	"	16..	Moosejaw	"	"	34	" 238	78 00
Canadian B. & M. Co., Ltd.	"	16..	Vancouver	"	"	34	" 238	453 00
Vancouver Breweries, Ltd., The	"	16..	"	"	"	34	" 238	540 00
National Breweries, Ltd., The	"	22..	Montreal	"	"	34	" 238	162 00
Edmonton B. & M. Co., Ltd., The	"	22..	Calgary	"	"	34	" 238	216 00
Henderson, H.	"	22..	Vancouver	"	"	34	" 238	21 00
	1912.							
Hoeschen Wentzler Brewing Co., Ltd., The	Jan.	13..	Moosejaw	"	"	34	" 238	156 00
Vancouver Breweries, Ltd., The	"	13..	Vancouver	"	"	34	" 238	720 00

No. 15.—Refunds of Revenue—*Continued.*

EXCISE—*Continued.*

Articles.	To whom paid.	Date.	Divisions.	Under what Authority refunded.	Amounts.	Totals.
		1912.			$ cts.	$ cts.
Malt—*Continued.*	Canadian B. & M. Co., Ltd.	Jan. 13	Vancouver	Refunded under Revised Statutes, cap. 34, sec. 238	196 50	
	Lethbridge B. & M. Co., Ltd.	" 13	Calgary	" " 34 " 238	139 50	
	National Breweries, Ltd., The	" 18	Montreal	" " 34 " 238	108 00	
	Victoria Phœnix Brewing Co., Ltd.	" 30	Victoria	" " 34 " 238	751 50	
	Reith Donald	" 30	Halifax	" " 34 " 238	10 45	
	Edmonton B. & M. Co., Ltd., The	Feb. 12	Calgary	" " 34 " 238	216 00	
	Vancouver Breweries, Ltd., The	" 14	Vancouver	" " 34 " 238	180 00	
	Canadian B. & M. Co., Ltd.	" 15	"	" " 34 " 238	342 00	
	Henderson, H	" 15	"	" " 34 " 238	21 00	
	Lethbridge B. & M. Co., Ltd., The	" 15	Calgary	" " 34 " 238	186 00	
	National Breweries, Ltd., The	" 20	Montreal	" " 34 " 238	108 00	
	Hoeschen Wentzler Brewing Co., Ltd., The	Mar. 12	Moosejaw	" " 34 " 238	100 50	
	Lethbridge B. & M. Co., Ltd., The	" 12	Calgary	" " 34 " 238	93 00	
	Canadian B. & M. Co., Ltd.	March 12	Vancouver	" " 34 " 238	478 50	
	National Breweries, Ltd, The	" 14	Montreal	" " 34 " 238	54 00	
	Edmonton Brewing Co., Ltd. The	" 20	Calgary	" " 34 " 238	576 00	
	Kakabeka Falls Brewing Co., Ltd, The	" 20	Port Arthur	" " 34 238	50 05	
	Hoeschen Wentzler Brewing Co., Ltd., The	April 11	Moosejaw	" " 34 " 238	96 00	
	Edmonton Brewing Co., Ltd, The	" 11	Calgary	" " 34 " 238	360 00	
	Lethbridge B. & M. Co., Ltd, The	" 11	"	" " 34 " 238	232 50	
	Canadian B. & M. Co., Ltd.	" 13	Vancouver	" " 34 " 238	256 50	
	Nelson Nels	" 13	"	" " 34 " 238	27 00	
	National Breweries, Ltd, The	" 13	Montreal	" " 34 " 238	162 00	
	Vancouver Breweries, Ltd, The	" 17	Vancouver	" " 34 " 238	1,140 00	
	Roy, J. A	" 23	Belleville	" " 29 " 78	144 60	

Corby H. Distillery Co., Ltd	"	23	"	"	"	"	29	"	78	180	00
Bixel, A	"	23	Brantford	"	"	"	29	"	78	432	45
Oland, J. C.	"	23	"	"	"	"	29	"	78	54	22
Sleeman, G. A.	"	23	Guelph	"	"	"	29	"	78	660	15
Holliday, W. R	"	23	"	"	"	"	29	"	78	417	50
Lutz, W. H	"	23	"	"	"	"	29	"	78	86	33
Berlin Lion Brewery, Ltd, The	"	23	"	"	"	"	29	"	78	1,226	25
Rau, Mary	"	23	"	"	"	"	29	"	78	30	27
Bernhardt, V. P	"	23	"	"	"	"	29	"	78	202	42
Bauer, A	"	23	"	"	"	"	29	"	78	2,491	72
Seagram, J. A	"	23	"	"	"	"	29	"	78	216	80
Stevenson, R	"	23	Kingston	"	"	"	29	"	78	129	98
Fisher, John	"	23	"	"	"	"	29	"	78	210	31
Hamilton, Jos	"	23	London	"	"	"	29	"	78	108	00
Labatt, John	"	23	"	"	"	"	29	"	78	1,562	40
Carling, T. H	"	23	"	"	"	"	29	"	78	1,735	46
Begg, Geo. C	"	23	"	"	"	"	29	"	78	267	00
Blake & Dunne	"	23	Ottawa	"	"	"	29	"	78	122	40
Capital Brewing Co., Ltd, The	"	23	"	"	"	"	29	"	78	874	50
New Ontario Brewing Co., Ltd, The	"	23	Perth	"	"	"	29	"	78	270	00
Sudbury B. & M. Co., Ltd	"	23	"	"	"	"	29	"	78	1,318	50
Taylor & Bate	"	23	St. Catharines	"	"	"	29	"	78	636	73
White, Thos. F	"	23	"	"	"	"	29	"	78	430	50
Watson, John	"	23	Stratford	"	"	"	29	"	78	165	82
Canada Malting Co., Ltd, The	"	33	"	"	"	"	29	"	78	456	96
Devlin, Felix	"	23	"	"	"	"	29	"	78	130	50
Reinhardt, L	"	23	Toronto	"	"	"	29	"	78	1,456	96
Toronto B. & M. Co., Ltd	"	23	"	"	"	"	29	"	78	1,031	64
Cosgrave Brewing Co., Ltd	"	23	"	"	"	"	29	"	78	1,665	98
Copland Brewing Co. Ltd	"	23	"	"	"	"	29	"	78	2,347	12
Gooderham & Worts, Ltd	"	23	"	"	"	"	29	"	78	1,074	01
Dominion Brewing Co., Ltd, The	"	23	"	"	"	"	29	"	78	1,154	30
Kormann Brewery, Ltd, The	"	23	"	"	"	"	29	"	78	172	80
O'Keefe Brewery, Ltd, The	"	23	"	"	"	"	29	"	78	5,280	26
Barrie M. & Ext., Co., Ltd., The	"	23	"	"	"	"	29	"	78	98	25
Kemp, D. C	"	23	"	"	"	"	29	"	78	183	74
Wright, A. J	April	23	"	"	"	"	29	"	78	20	47
Soo Falls Brewing Co., Ltd	"	23	"	"	"	"	29	"	78	776	25
Molson, H	"	24	Montreal	"	"	"	29	"	78	4,241	78
National Breweries Ltd., The	"	24	"	"	"	"	29	"	78	4,322	78
Canada Malting Co., Ltd	"	24	"	"	"	"	29	"	78	10,297	42
St. Hyacinthe Distillery Co., Ltd., The	"	24	St. Hyacinthe	"	"	"	29	"	78	33	75
Jones, Simeon, Ltd	"	24	St. John	"	"	"	29	"	78	255	00
Ready, James	"	24	"	"	"	"	29	"	78	735	00

No. 15.—Refunds of Revenue—*Concluded.*

EXCISE—*Concluded.*

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
		1912.			$ cts.	$ cts.
Malt—(*Continued*) ..	Oland & Son	April 24..	Halifax	Refunded under Revised Statutes cap. 29 sec. 78....	255 75	
	Halifax Breweries, Ltd.	" 24..	"	" " 29 " 78....	578 20	
	Keith, D.	" 24..	"	" " 29 " 78...	1,312 50	
	Drewery, E. L.	" 24..	Winnipeg	" " 29 " 78....	628 90	
	Canada Malting Co., Ltd	" 24..	"	" " 29 " 78...	5,639 72	
	Empire Brewing Co., Ltd	" 24..	"	" " 29 " 78..	371 36	
	Brandon Brewing Co., Ltd., The	" 24..	"	" " 29 " 78...	346 38	
	Rice Malting Co. of Can., The	" 24..	"	" " 29 " 78....	341 33	
	Moose Jaw B. and M. Co.	" 24..	Moosejaw	" " 29 " 78....	300 00	
	Golden Lion Brewing Co., Ltd.	" 24..	"	" " 29 " 78...	237 67	
	Mueller, Julius	" 24..	"	" " 29 " 78....	180 00	
	Hoeschen Wentzler Brewing Co., Ltd., The	" 24..	"	" " 34 " 238....	510 00	
	Union Brewery Co., Ltd., The	" 24..	Victoria	" " 29 " 78....	600 00	
	Eaton, Chris	" 25..	Owen Sound	" " 29 " 78...	47 73	
	Schwan, Wm.	" 25..	"	" " 29 " 78...	56 25	
	Heisz & Tiede	" 25..	"	" " 29 " 78....	162 00	
	Farquharson & Grainger	" 25..	"	" " 29 " 78....	77 25	
	Huether, Wm	" 25..	"	" " 29 " 78....	125 28	
	Simpson, W. H.	" 25..	Peterborough	" " 29 " 78....	135 11	
	Calcutt, H	" 25..	"	" " 29 " 78 ...	403 57	
	Victoria Phœnix Brewing Co., Ltd	" 25..	Victoria	" " 29 " 78....	1,110 00	
	Silver Spring Brewery Co., The	" 25..	"	" " 29 " 78 ...	811 50	
	Union Brewery Co., Ltd.	" 25..	"	" " 29 " 78....	596 71	
	Pilsener Brewing Co.	" 25..	"	" " 29 " 78....	150 00	
	Superior B. & M. Co.	" 30..	Port Arthur	" " 29 " 78...	231 00	
	Lakewood Brewing Co.	" 30..	"	" " 29 " 78....	108 73	
	Kakabeka Falls Brewing Co., Ltd., The	" 30..	"	" " 29 " 78....	690 00	
	Irion, A. L	" 30..	Windsor	" " 29 " 78....	615 00	
	Walkerville Brewing Co., Ltd.	" 30..	"	" " 29 " 78 ..	30 00	
	Hiram Walker & Sons, Ltd.	" 30..	"	" " 29 " 78....	1,936 62	
	Silver Spring Brewery, Ltd	" 30..	Sherbrooke	" " 29 " 78....	815 03	
	Calgary B. & M. Co., Ltd.	" 30..	Calgary	" " 29 " 78....	2,446 08	
	Golden West Brewing Co., Ltd.	" 30..	"	" " 29 " 78....	138 75	
	Edmonton B. & M. Co., Ltd., The	" 30..	"	" " 29 " 78....	596 25	

	Lethbridge B. & M. Co., Ltd.	" 30..	"	"	"	29 " 78....	802 50	
	Strathcona B. & M Co.....	" 30..	"	"	"	29 " 78...	457 50	
								113,165 06
		1911.						
Tobacco	Imperial Tobacco Co. of Canada, Ltd	Aug. 18..	Montreal	"	"	34 " 270....	123 40	
	National Snuff Co., Ltd.....	Nov. 8..	"	"	"	34 " 270....	124 80	
	" "	" 20..	"	"	"	34 " 270...	176 00	
	Hawkins, C. & E	Dec. 4.	"	"	"	34 " 238....	2 40	
		1912.						
	G. E. Tuckett & Son Co., Ltd., The...	Mar. 1..	Hamilton.....	"	"	34 " 270....	4 48	
	Cooke, H. E....	" 9..	Owen Sound.....	"	"	34 " 238....	10 08	
								441 16
		1911.						
Officers' salary.....	Gadbois, G. H	May 15..	Montreal	"	"	34 " 238....	300 00	
	Belleville Fruit and Vinegar Co., Ltd., The.....	" 18..	Belleville.....	"	"	34 " 238....	300 00	
	Dyson Co	Aug. 3..	Winnipeg	"	"	34 " 238....	50 00	
		1912.						
	Allen, C. C. (Estate of).....	April 30..	Brantford	"	"	34 " 238....	300 00	
	Belleville Cider and Vinegar Co	" 30..	Belleville.....	"	"	34 " 238....	300 00	
								1,250 00
		1911.						
Warehouse Licenses.	Pruyn, M. W. (Estate of)....	Nov. 22..	Kingston	"	"	34 " 238....	.....	37 50
		1912.						
Weights and Measures Insp.....	Walton, G	Mar. 27..	Winnipeg..... . .	"	"	34 " 238...	....	2 95
		1911.						
Gas Inspection.....	Sarnia Gas and Electric Light Co., Ltd	Nov. 8..	Sarnia	"	"	34 " 238....	....	4 50
Methylated Spirits Revenue	Wilson, A. Mcd	Aug. 16..	Hamilton	.....	.....	.....	244 97	
	Powell, J. B..	" 16..	Guelph	.....	.....	.....	244 98	489 95
						Total.....	....	137,285 50

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

No. 16.—DEPARTMENTAL EXPENDITURES FOR 1911-1912.

Dr.							Cr.			
Due by sundry persons, April 1, 1911.	Disbursed by the Receiver General.	Deductions for Superannuation.	Deductions for Insurance.	Deductions for Retirement.	Totals.		Salaries.	Contingencies.	Due by sundry persons, March 31, 1912.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
.....	7,000 00	.....	.....	.....	7,000 00	...Minister of Inland Revenue	7,000 00	.....	.....	7,000 00
.....	92,588 66	494 38	386 88	2,847 56	96,317 48	...Departmental officers	96,317 48	.....	.....	96,317 48
.....	367 70	.....	.....	.....	367 70	...Subscription to newspapers	.....	367 70	.....	367 70
.....	2,012 71	.....	.....	.....	2,012 71	...Extra clerks, &c.	.....	2,012 71	.....	2,012 71
.....	662 09	.....	.....	.....	662 09	...Telegraph companies and telephones	.....	662 09	.....	662 09
.....	51 25	.....	.....	.....	51 25	...Books and Parliamentary publications	.....	51 25	.....	51 25
.....	1,569 75	.....	.....	.....	1,569 75	...Stationery	.....	1,569 75	.....	1,569 75
.....	1,237 35	.....	.....	.....	1,237 35	...Printing and lithographing	.....	1,237 35	.....	1,237 75
16 66	2,093 34	.....	.....	.....	2,110 00	...Sundry persons	.....	2,093 34	16 66	2,110 00
16 66	107,582 85	494 38	386 88	2,847 56	111,328 33	...Totals	103,317 48	7,994 19	16 66	111,328 33

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

WEIGHTS AND MEASURES, GAS, ELECTRIC LIGHT AND LAW STAMPS.

No. 17.—Statement showing amount of Revenue accrued during the year ended March 31, 1912.

Dr.

———	Weights and Measures Stamps.	Gas Stamps.	Electric Light Stamps.	Law Stamps.			Totals.
				Supreme Court.	Exchequer Court.	Yukon Territorial Court.	
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
To Amount of stamps destroyed and returned by distributors	496 30	6,896 75	15,772 50	.....	.....	.....	23,165 55
To commission allowed	.....	.....	.....	.....	221 50	.....	221 50
To amount of stamps remaining in hands of distributors, March 31, 1912	98,705 78	62,815 20	55,333 10	82 55	.....	7,346 95	224,283 58
To balance being the revenue during the year ended March 31, 1912	105,245 20	51,356 25	66,060 10	1,152 85	4,208 50	1,728 00	229,750 90
Totals	204,447 28	121,068 20	137,165 70	1,235 40	4,430 00	9,074 95	477,421 53

Cr.

By amount of stamps in the hands of distributors, April 1, 1911	91,227 78	54,280 00	55,619 75	35 40	.....	6,074 95	207,237 88
By stamps issued by the Inland Revenue Department during the year ended March 31, 1912	113,219 50	66,788 20	81,545 95	1,200 00	4,430 00	3,000,00	270,183 65
Totals	204,447 28	121,068 20	137,165 70	1,235 40	4,430 00	9,074 95	477,421 53

Inland Revenue Department,
Ottawa, June 1, 1912.

W, J. GERALD,
Deputy Minister.

Dr. WEIGHTS AND MEASURES, 1911-1912. Cr.

No. 18 (A).—Inspection Divisions in Account with Revenue.

Balances due by Inspectors, April 1, 1911.		Stamps issued to Inspectors	Seizures and Penalties.	Other Receipts.	Transfers.	Totals.	Divisions.	Transfers.	Stamps returned or destroyed.	Deposited to the Credit of the Receiver General.	Balances due by Inspectors, March 31, 1912.		Totals.
Stamps on hand.	Cash on hand.										Stamps on hand.	Cash on hand.	
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
3,612 80	.....	2,965 00	.....	.....	.....	6,577 80	Belleville	.....	162 40	2,529 00	3,886 40	.....	6,577 80
5,055 01	.....	11,315 00	.....	239 00	.....	16,609 01	Hamilton	.....	.....	10,230 58	6,378 43	.....	16,609 01
1,359 10	.....	4,325 00	.....	.....	.....	5,684 10	Kingston	.....	.....	4,031 70	1,652 40	.....	5,684 10
10,511 35	.....	7,250 00	.....	.....	.....	17,761 35	London	.....	.....	11,364 00	6,397 35	.....	17,761 35
2,867 50	.....	9,723 00	.....	.....	.....	12,590 50	Ottawa	.....	20 60	6,077 62	6,492 28	.....	12,590 50
5,038 16	.....	18,325 00	20 00	.....	.....	23,383 16	Toronto	.....	.....	13,090 97	10,292 19	.....	23,383 16
28,443 92	.....	53,903 00	20 00	239 00	.....	82,605 92	*Ontario*	.....	183 00	47,323 87	35,099 05	.....	82,605 92
25,222 00	.....	17,200 00	.....	8 00	.....	42,430 00	Montreal	.....	.....	14,938 55	27,491 45	.....	42,430 00
3,442 80	.....	5,050 00	.....	.....	.....	8,492 80	Quebec	.....	209 60	4,958 65	3,324 55	.....	8,492 80
5,398 70	52 50	7,925 00	.....	.....	.....	13,376 20	St. Hyacinthe	.....	3 70	7,568 45	5,804 05	.....	13,376 20
2,713 10	.....	810 00	.....	.....	.....	3,523 10	Three Rivers	.....	.....	1,728 45	1,794 65	.....	3,523 10
36,776 60	52 50	30,985 00	.....	8 00	.....	67,822 10	*Quebec*	.....	213 30	29,194 10	38,414 70	.....	67,822 10
1,676 73	224 91	1,810 00	.....	.....	.....	3,711 64	*St. John, N.B.*	.....	.....	2,440 75	1,270 89	.....	3,711 64
703 87	.....	288 00	.....	.....	.....	991 87	Cape Breton	398 16	.....	593 71	.....	.....	991 87
1,009 91	.....	1,990 50	.....	.....	.....	3,000 41	Halifax	.....	.....	1,107 55	1,892 86	.....	3,000 41
2,490 17	.....	.....	.....	.....	398 16	2,888 33	Pictou	.....	.....	903 34	1,984 99	.....	2,888 33
4,203 95	.....	2,278 50	.....	.....	398 16	6,880 61	*Nova Scotia*	398 16	.....	2,604 60	3,877 85	.....	6,880 61

440 90	.....	468 50	.....	.....	.....	909 40	*Charlottetown, P.E.I.*	.....	.....	414 00	495 40	.....	909 40
8,495 94	.....	9,692 50	.....	.....	.....	18,188 44	...*Winnipeg, Man*...	.....	.....	9,623 30	8,565 14	.....	18,188 44
2,428 84	.....	5,562 00	.....	.....	.....	7,990 84	...*Saskatoon, Sask*...	.....	.....	6,021 39	1,969 45	.....	7,990 84
2,737 40	.....	4,730 00	.....	.....	.....	7,467 40	....*Calgary, Alta*....	.....	.....	4,615 15	2,852 25	.....	7,467 40
1,165 75	.....	450 00	.....	.....	.....	1,615 75	....Ne'son.....	.....	.....	1,061 35	554 40	.....	1,615 75
2,585 75	.....	3,340 00	.....	0 30	.....	5,926 05	....Vancouver	.....	100 00	2,486 90	3,339 15	.....	5,926 05
3,751 50	.....	3,790 00	.....	0 30	.....	7,541 80	..*British Columbia*..	.....	100 00	3,548 25	3,893 55	.....	7,541 80
2,272 00	.....	.....	.....	.....	.....	2,272 00	...*Dawson, Yukon*...	.....	.....	4 50	2,267 50	.....	2,272 00
91,227 78	277 41	113,219 50	20 00	247 30	398 16	205,390 15	.....Totals.....	398 16	496 30	105,789 91	98,705 78	.....	205,390 15
.....	.....	.....	.....	.....	.....	1,896 10	W. & M. on account of milk glasses.....	.....	.....	1,896 10	.....	.....	1,896 10
			.....	.....	.....	207,286 25			.....	107,686 01	.....	.....	207,286 25
						2 95	Refund, as per Statement No. 15.....	.....	.....	2 95	.....	.....	2 95
.....	.....	.....	.....	.....	.....	207,283 30	....Grand Totals....	.....	.....	107,683 66	.....	.....	207,283 30

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

WEIGHTS AND MEASURES, 1911-1912.

No. 18 (B).—Deputy Inspectors of Old Divisions in Account with Revenue.

Dr.			Cr.	
Balance due April 1, 1911. Cash on hand.	Totals.	Divisions.	Balance due April 1, 1912. Cash on hand.	Totals.
$ cts.	$ cts.		$ cts.	$ cts
87 10	87 10	.... Essex, Ont.	87 10	87 10
5 62	5 62	.... Hull, Que.	5 62	5 62
92 72	92 72		92 72	92 72

W. J. GERALD,
Deputy Minister.

Inland Revenue Department,
Ottawa, June, 1912.

WEIGHTS AND MEASURES—1911-12.

No. 19 (A)—Inspection Divisions in Account with Expenditures.

Dr. Cr.

Amounts received from Department to meet Expenditures.	Deductions From Salaries for			Totals.	Divisions.	Expenditures Authorized by the Department.						Amounts due by Inspector March 31, 1912.	Totals.
	Superannuation.	Insurance.	Guarantee			Salaries.	Special Assistance	Seizures.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
5,234 91	39 80	.....	9 00	5,283 71	..Belleville.....	3,574 80	10 00	.....	422 50	938 46	337 95	.....	5,283 71
8,857 68	14 78	.....	13 95	8,886 41	..Hamilton.....	6,974 61	136 52	....	.....	1,696 90	78 38	....	8,886 41
3,641 02	.....	.....	7 20	3,648 22	..Kingston.....	2,683 22	.....	.....	.....	914 65	50 35	.....	3,648 22
7,724 19	.....	.....	10 80	7,734 99	..London.....	5,245 63	33 00	...	.....	2.227 18	229 18	.....	7,734 99
7,188 67	9 64	.....	12 15	7,210 46	..Ottawa.....	5,349 77	174 99	....	.....	1,564 94	120 76	...	7,210 46
9,182 46	19 76	.....	13 95	9,216 17	..Toronto.....	7,133 10	101 38	.....	.....	1,800 25	181 44	....	9,216 17
41,828 93	83 98	.....	67 05	41,979 96	..... *Ontario*.....	30,961 13	455 89	.....	422 50	9,142 38	998 06	...	41,979 96
12,618 50	19 76	.....	15 15	12,653 41	..Montreal.....	7,853 92	1,075 00	....	1,000 00	2,552 60	171 89	.....	12,653 41
10,845 40	38 40	.....	16 95	10,900 75	..Quebec.....	7,567 12	797 00	.....	400 00	1,897 19	239 44	....	10,900 75
7,423 41	.....	.....	9 58	7,432 99	..St. Hyacinthe.....	4,338 11	1,459 42	.....	.....	1,475 34	160 12	.....	7,432 99
2,506 27	.....	66 00	5 00	2,577 27	..Three Rivers.....	1,699 62	18 03	.....	.....	813 45	46 17	...	2,577 27
33,393 58	58 16	66 00	46 68	33,564 42	.. ....*Quebec*,.....	21,458 77	3,349 45	.....	1,400 00	6,738 58	617 62	.....	33,564 42
4,349 97	.....	.....	8 85	4,358 82	.....*St. John, N.B.*..	3,658 14	241 93	.....	.....	391 57	67 18	...	4,358 82
1,772 68	.....	.....	3 60	1,776 28	..Cape Breton	1,041 66	.....	....	70 50	580 84	83 28	.....	1,776 28
3,798 06	.....	.....	5 15	3,803 21	..Halifax.....	1,717 62	921 61	.....	507 36	514 61	142 01	...	3,803 21
2,424 91	21 96	.....	5 40	2,452 27	..Pictou.....	1,991 58	56 00	....	.....	296 08	108 61	.....	2,452 27
7,995 65	21 96	.....	14 15	8,031 76	.....*Nova Scotia*	4 750 86	977 61	.....	577 86	1,391 53	333 90	...	8,031 76
2,062 90	.....	.....	5 40	2,068 30	..*Charlottetown, P.E I*...	1,841 58	15 00	...	.....	141 31	70 41	....	2,068 30

WEIGHTS AND MEASURES—1911-1912.

No. 19 (A)—Inspection Divisions in Account with Expenditures.

Dr. | Cr.

Amounts reserved from Department to meet Expenditures.	Deductions from Salaries for: Superannuation.	Insurance.	Guarantee.	Totals.	Divisions.	Expenditures Authorized by the Department: Salaries.	Special Assistance.	Seizures.	Rent.	Travelling Expenses.	Sundries.	Amounts due by Inspector, March 31, 1912.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
8,368 59	.....	.....	12 90	8,381 49	....*Winnipeg, Man.*	5,341 48	233 32	.....	.....	2,645 27	161 42	.....	8,381 49
5,714 98	24 00	.....	7 20	5,746 18	....*Calgary, Alberta*	2,999 88	.....	.....	.....	2,629 85	116 45	.....	5,746 18
6,166 33	.....	.....	4 85	6,171 18	....*Saskatoon*	1,878 44	876 58	.....	.....	3,316 81	95 65	3 70	6,171 18
2,519 95	.....	.....	3 60	2,523 55	..Nelson	1,244 60	.....	.....	.....	1,233 95	48 00	.....	2,523 55
4,171 91	.....	.....	9 00	4,180 91	..Vancouver	3,541 51	.....	.....	.....	223 20	416 20	.....	4,180 91
6,691 86	.....	.....	12 60	6,704 46	..*British Columbia*	4,783 11	.....	.....	.....	1,457 15	464 20		6,704 46
1,009 15	.....	.....	3 60	1,012 75	...*Dawson, Yukon*	1,000 00	.....	.....	.....	12 75	.....	.....	1,012 75
117,581 94	188 10	66 00	183 28	118,019 32		78,673 39	6,149 78	.....	2,400 36	27,867 20	2,924 89	3 70	118,019 32
365 34	.....	.....	.....	365 34	..Chief Inspector	.....	.....	.....	.....	296 35	68 99	.....	365 34
2,203 22	.....	.....	.....	2,203 22	..General Contingencies.	.....	.....	.....	.....	.....	2,203 22		2,203 22
1,594 96	.....	.....	.....	1,594 96	..Printing	.....	.....	.....	.....	.....	1,594 96	.....	1,594 96
567 68	.....	.....	.....	567 68	..Stationery	.....	.....	.....	.....	.....	567 68	.....	567 68
5 50	.....	.....	.....	5 50	..Lithographing	.....	.....	.....	.....	.....	5 50	.....	5 50
1,291 44	.....	.....	.....	1,291 44	..Provisional allowance	.....	.....	.....	.....	.....	1,291 44	.....	1,291 44
209 37	.....	.....	.....	209 37	..International Bureau of Weights & Measures	.....	.....	.....	.....	.....	209 37	.....	209 37
123,819 45	188 10	66 00	183 28	124,256 83	....Grand totals	78,673 39	6,149 78	.....	2,400 36	28,163 55	8,866 05	3 70	124,256 83

Inland Revenue Department,
Ottawa, June 1, 1912.

W. J. GERALD,
Deputy Minister.

WEIGHTS AND MEASURES, 1911-1912.

DR. No. 19 (B).—OLD INSPECTION DIVISIONS in Account with Expenditures. CR.

Balances due by sundry persons, April 1, 1911.	Totals.	Divisions.	Balances due by sundry persons, March 31, 1912.	Totals.
$ cts.	$ cts.		$ cts.	$ cts.
39 56	39 56	Essex	39 56	39 56
33 53	33 53	Waterloo	33 53	33 53
73 09	73 09	*Ontario*	73 09	73 09
0 33	0 33	Drummond	0 33	0 33
41 45	41 45	Laval	41 45	41 45
26 88	26 88	Montmorency	26 88	26 88
27 51	27 51	Richelieu	27 51	27 51
96 17	96 17	*Quebec*	96 17	96 17
24 00	24 00	Lunenburg, Nova Scotia	24 00	24 00
193 26	193 26	Totals	193 26	193 26

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT

OTTAWA, June 1, 1912.

GAS INSPECTORS, 1911-12.

DR. No. 20.—INSPECTION DISTRICTS in Account with Revenue. CR.

Balances due by Inspectors, April 1, 1911. Stamps on hand.	Balances due by Inspectors, April 1, 1911. Cash on hand.	Stamps issued to Inspectors.	Transfer.	Totals.	Districts.	Transfer.	Stamps returned or destroyed.	Deposited to the credit of the Receiver General.	Balances due by Inspectors, March 31, 1912. Stamps on hand.	Balances due by Inspectors, March 31, 1912. Cash on hand.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
878 50		300 00		1,178 50	Barrie			142 60	1,035 90		1,178 50
439 50		600 00		1,039 50	Belleville			316 25	723 25		1,039 50
1,755 50		300 00		2,055 50	Berlin			434 20	1,621 30		2,055 50
1,096 00		300 00	430 00	1,826 00	Brockville		153 00	203 30	1,169 70		1,826 00
115 25		370 00		485 25	Cobourg			189 20	296 05		485 25
722 75		60 00		782 75	Cornwall	500 00	12 00	21 75	249 00		782 75
1,353 50		300 00		1,653 50	Guelph		340 00	160 25	853 25		1,653 50
3,135 25		9,898 20		13,033 45	Hamilton			8,221 95	1,811 50		13,033 45
1,318 25		300 00	70 00	1,688 25	Kingston		350 00	608 95	729 30		1,688 25
231 50		60 00		291 50	Listowel			43 20	248 30		291 50
2,747 50		3,425 00		6,172 50	London		89 25	3,379 35	2,703 90		6,172 50
203 25		60 00		263 25	Napanee			49 75	213 50		263 25
6,336 00		1,275 00		7,611 00	Ottawa			1,612 95	5,998 05		7,611 00
417 50		550 00		967 50	Owen Sound		334 75	160 75	472 00		967 50
1,106 25		420 00		1,526 25	Peterborough			350 70	1,175 55		1,526 25
1,546 00		300 00		1,846 00	Sarnia		159 75	436 35	949 90		1,846 00
1,250 50		140 00		1,390 50	Stratford			214 05	1,176 45		1,390 50
10,424 00		13,690 00		24,114 00	Toronto		184 50	14,836 05	8,793 45		24,114 00
1,183 50		120 00		1,303 50	Woodstock			222 35	1,081 15		1,303 50
36,260 50		32,468 20	500 00	69,228 70	*Ontario*	500 00	2,523 25	31,903 95	34,301 50		69,228 70
3,619 00		15,800 00		19,419 00	Montreal		385 70	11,470 60	7,562 90		19,419 00
1,852 50		1,375 00		3,227 50	Quebec		182 25	557 85	2,487 40		3,227 50
489 50		300 00		789 50	Sherbrooke		15 75	103 45	676 60		789 50
880 75		300 00		1,180 75	St. Hyacinthe			83 95	1,096 80		1,180 75
6,841 75		17,775 00		24,616 75	*Quebec*		583 50	12,215 55	11,817 70		24,616 75
575 75				575 75	Fredericton				575 75		575 75
755 00		330 00		1,085 00	St. John			622 05	462 95		1,085 00

1,330 75	.....	330 00	.....	1,660 75	..... *New Brunswick*	.....	.....	622 05	1,038 70	.....	1,660 75
1,527 25	.....	270 00	.....	1,797 25	..... *Halifax, N.S.*	.....	59 25	356 90	1,381 10	.....	1,797 25
1,110 75	.....	300 00	.....	1,410 75	..... *Charlottetown, P.E.I.*	.....	142 50	49 00	1,219 25	.....	1,410 75
2,145 50	.....	4,950 00	.....	7,095 50	..... *Winnipeg, Man.*	.....	.....	2,408 75	4,686 75	.....	7,095 50
.....	.....	3,330 00	.....	3,330 00	..... *Calgary*	.....	950 00	124 80	2,255 20	.....	3,330 00
537 25	.....	120 00	.....	657 25	..... Nanaimo	.....	350 00	89 30	217 95	.....	657 25
877 25	.....	120 00	.....	997 25	..... New Westminster	.....	.....	72 75	924 50	.....	997 25
2,324 75	.....	5,600 00	.....	7,924 75	..... Vancouver	.....	2,288 25	2,807 10	2,829 40	.....	7,924 75
1,324 25	.....	1,525 00	.....	2,849 25	..... Victoria	.....	.....	706 10	2,143 15	.....	2,849 25
5,063 50	.....	7,365 00	.....	12,428 50	..... *British Columbia*	.....	2,638 25	3,675 25	6,115 00	.....	12,428 50
54,280 00	.....	66,788 20	500 00	121,568 20	..... Totals	500 00	6,896 75	51,356 25	62,815 20	.....	121,568 20
				4 50	Less refunded as per Statement No 15.	.....	.....	4 50	.....	.....	4 50
.....	.....	.....	.....	121,563 70	Grand Totals	.....	.....	51,351 75	.....	.....	121,563 70

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

GAS INSPEC

DR. No. 21.—INSPECTION DISTRICTS IN

Balances due by Inspectors, April 1, 1911.	Amounts received from Department to meet Expenditures.	Deductions from Salaries for Superannuation.	Deductions from Salaries for Retirement.	Deductions from Salaries for Guarantee.	Totals.	Districts.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
	96 30	2 00		3 60	101 90	Barrie
	761 56	9 00		5 76	776 32	Belleville
	276 72			3 60	280 32	Berlin
	163 84				163 84	Brockville
	155 92	2 00		3 60	161 52	Cobourg
	358 89	6 00		3 60	368 49	Guelph
	4,411 28	39 96		9 00	4,460 24	Hamilton
	186 40			3 60	190 00	Listowel
	3,171 20			5 40	3,176 60	London
	46 28				46 28	Napanee
	4,168 27			9 36	4,177 63	Ottawa
	197 40			3 60	201 00	Owen Sound
	150 40			3 60	154 00	Peterborough
	200 05			3 60	203 65	Sarnia
	205 40	4 00		3 60	213 00	Stratford
	8,527 24		74 99	14 40	8,616 63	Toronto
	210 50			1 80	212 30	Woodstock
	23,287 65	62 96	74 99	78 12	23,503 72	*Ontario*
	6,345 29			11 16	6,356 45	Montreal
	1,850 36	22 76		7 20	1,880 32	Quebec
	324 06	3 80		5 40	333 26	Sherbrooke
	98 20			1 80	100 00	St. Hyacinthe
	8,617 91	26 56		25 56	8,670 03	*Quebec*
	98 20			1 80	100 00	Fredericton
	1,445 30			3 60	1,448 90	St. John
	1,543 50			5 40	1,548 90	*New Brunswick*
	3,309 93	1 92		7 20	3,319 05	Halifax
12 88					12 88	Pictou
12 88	3,309 93	1 92		7 20	3,331 93	*Nova Scotia*
	496 40			3 60	500 00	*Charlottetown, P.E.I.*
	2,766 41			5 40	2,771 81	*Winnipeg, Man*
	155 60				155 60	*Calgary, Alta*
	96 40			3 60	100 00	Nanaimo
	189 15		10 00	3 60	202 75	New Westminster
	122 40				122 40	Vancouver
	290 40	6 00		3 60	300 00	Victoria
	698 35	6 00	10 00	10 80	725 15	*British Columbia*
200 00					200 00	General
	382 60				382 60	Eastern Dominion Inspector
	70 04				70 04	Western "
	1,460 90				1,460 90	General Contingencies
	1,083 52				1,083 52	Printing
	1,041 15				1,041 15	Stationery
212 88	44,913 96	97 44	84 99	136 08	45,445 35	*Grand Total*

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

TION 1911–12.

ACCOUNT WITH EXPENDITURES. CR.

Expenditure Authorized by the Department.					Balances due by Inspectors, March 31, 1912.	Totals.
Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
100 00	...	...	...	1 90	...	101 90
524 97	...	162 50	2 95	85 90	...	776 32
167 67	7 50	...	78 95	26 20	...	280 32
...	...	...	...	163 84	...	163 84
100 00	6 00	...	29 10	26 42	...	161 52
300 00	...	...	...	68 49	...	368 49
4,083 14	1 50	120 00	176 35	79 25	...	4,460 24
100 00	3 00	78 00	...	9 00	...	190 00
2,441 58	267 00	...	385 40	82 62	...	3,176 60
...	...	...	44 55	1 73	...	46 28
3,333 24	133 39	600 00	3 50	107 50	...	4,177 63
200 00	...	...	...	1 00	...	201 00
150 00	...	...	...	4 00	...	154 00
200 00	...	...	...	3 65	...	203 65
200 00	6 00	...	...	7 00	...	213 00
7,328 78	1,082 35	...	...	205 50	...	8,616 63
200 00	6 00	...	...	6 30	...	212 30
19,429 38	1,512 74	960 50	720 80	880 30	...	23,503 72
5,024 82	6 00	240 00	131 90	953 73	...	6,356 45
1,608 22	20 00	150 00	...	102 10	...	1,880 32
333 26	...	...	...	...	...	333 26
100 00	...	...	...	...	...	100 00
7,066 30	26 00	390 00	131 90	1,055 83	...	8,670 03
100 00	...	...	...	...	...	100 00
1,300 00	...	...	102 40	46 50	...	1,448 90
1,400 00	...	...	102 40	46 50	...	1,548 90
2,199 96	10 00	507 36	265 50	336 23	...	3,319 05
...	...	...	...	...	12 88	12 88
2,199 96	10 00	507 36	265 50	336 23	12 88	3,331 93
500 00	...	...	...	...	...	500 00
2,624 96	83 33	...	21 00	42 52	...	2,771 81
...	75 67	...	...	79 93	...	155 60
100 00	...	...	...	...	...	100 00
200 00	...	...	...	2 75	...	202 75
...	8 00	...	...	114 40	...	122 40
300 00	...	...	...	...	...	300 00
600 00	8 00	...	...	117 15	...	725 15
...	...	...	...	...	200 00	200 00
...	...	...	382 60	...	...	382 60
...	...	...	63 75	6 29	...	70 04
...	...	...	...	1,460 90	...	1,460 90
...	...	...	...	1,083 52	...	1,083 52
...	...	...	...	1,041 15	...	1,041 15
33,820 60	1,715 74	1,857 86	1,687 95	6,150 32	212 88	45,445 35

W. J. GERALD,
Deputy Minister.

ELECTRIC LIGHT

DR. No. 22.—INSPECTION DISTRICTS

Balances due by Inspectors, April 1, 1911. Stamps on hand.	Cash on hand.	Stamps issued to Inspectors.	Totals.	Districts.
$ cts.	$ cts.	$ cts.	$ cts.	
1,902 00		1,930 00	3,832 00	Belleville
1,867 75		3,723 20	5,590 95	Hamilton
2,717 00		4,227 75	6,944 75	London
7,748 00		5,100 00	12,848 00	Ottawa
9,613 25		13,000 00	22,613 25	Toronto
23,848 00		27,980 95	51,828 95	*Ontario.*
3,159 25		10,350 00	13,509 25	Montreal
3,002 75		675 00	3,677 75	Quebec
757 00		780 00	1,537 00	Sherbrooke
995 00		460 00	1,455 00	St. Hyacinthe
1,036 25		450 00	1,486 25	Three Rivers
8,950 25		12,715 00	21,665 25	*Quebec.*
1,694 50		1,850 00	3,544 50	*St. John, N.B.*
2,649 75		1,275 00	3,924 75	*Halifax, N.S.*
755 00		300 00	1,055 00	*Charlottetown, P.E.I.*
4,498 75		11,675 00	16,173 75	*Winnipeg, Man.*
1,143 25		3,450 00	4,593 25	*Regina, Sask.*
		5,200 00	5,200 00	Calgary
1,957 25		3,450 00	5,407 25	Edmonton
1,957 25		8,650 00	10,607 25	*Alberta*
6,096 00		11,250 00	17,346 00	Vancouver
2,677 00		2,400 90	5,077 00	Victoria
8,773 00		13,650 00	22,423 00	*British Columbia*
1,350 00			1,350 00	*Yukon*
55,619 75		81,545 95	137,165 70	Totals
			450 00	Export of Electric Power Licenses and Natural Gas
			51 10	Electric Standards of Laboratory
			137,666 80	

INLAND REVENUE DEPARTMENT,
OTTAWA, JUNE 1, 1912.

INSPECTION, 1911-1912.

in Account with Revenue. Cr.

Returned Damaged Stamps.	Deposited to the Credit of the Receiver General.	Balances due by Inspectors, March 31, 1912.		Totals.
		Stamps on hand.	Cash on hand.	
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
701 25	2,367 55	763 20	.....	3,832 00
600 00	2,852 15	2,138 80	.....	5,590 95
910 00	3,807 50	2,227 25	.....	6,944 75
2,950 00	4,258 60	5,639 40	.....	12,848 00
2,430 00	15,568 40	4,614 85	.....	22,613 25
7,59125	28,854 20	15,383 50	.....	51,828 95
370 00	7,315 40	5,823 85	.....	13,509 25
980 00	673 30	2,024 45	.....	3,677 75
.....	417 40	1,119 60	.....	1,537 00
500 00	144 00	811 00	.....	1,455 00
.....	230 75	1,255 50	.....	1,486 25
1,850 00	8,780 85	11,034 40	.....	21,665 25
960 00	1,420 20	1,164 30	.....	3,544 50
920 00	1,317 85	1,686 90	.....	3,924 75
.....	140 25	914 75	.....	1,055 00
2,134 00	8,309 30	5,730 45	.....	16,173 75
.....	2,730 65	1,862 60	.....	4,593 25
.....	1,817 40	3,382 60	.....	5,200 00
.....	2,452 75	2,954 50	.....	5,407 25
.....	4,270 15	6,337 10	.....	10,607 25
1,827 25	8,124 60	7,394 15	.....	17,346 00
490 00	2,112 05	2,474 95	.....	5,077 00
2,317 25	10,236 65	9.869 10	.....	22,423 00
.....	.....	1 350 00	.....	1,350 00
15,772 50	66,060 10	55,333 10	.....	137,165 70
.....	450 00	.....	.....	450 00
.....	51 10	.....	.....	51 10
.....	66,561 20	.....	.....	137,666 80

W. J. GERALD,
Deputy Minister.

ELECTRIC LIGHT INSPECTION, 1911-1912.

No. 23.—Inspection in Account with Expenditures.

Amounts received from Department to meet expenditures.	Guarantee.	Totals.	Districts.	Expenditures Authorized by the Department.					Balance due by Inspector Mar. 31, 1912	Totals.
				Salaries	Special Assistance.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,550 54	7 20	1,557 74	Belleville	1,000 00			505 99	51 75		1,557 74
195 74		195 74	Hamilton				190 55	5 19		195 74
398 35		398 35	London				376 55	21 80		398 35
500 75		500 75	Ottawa				500 75			500 75
1,730 65		1,730 65	Toronto				1,357 48	373 17		1,730 65
863 12		863 12	Montreal		799 92		40 00	23 20		863 12
86 60		86 60	Quebec				23 25	63 35		86 60
193 35		193 35	Sherbrooke				176 70	16 65		193 35
385 20	1 80	387 00	St. Hyacinthe	300 00			84 95	2 05		387 00
751 16	1 80	752 96	Three Rivers	500 00		120 00	119 70	13 26		752 96
374 76		374 76	St. John				363 80	10 96		374 76
249 97		249 97	Halifax				223 53	26 44		249 97
109 12		109 12	Charlottetown		25 00		39 85	44 27		109 12
2,149 12		2,149 12	Winnipeg		1,366 58	185 50	357 30	239 74		2,149 12
840 76	1 50	842 26	Calgary	500 00	66 66		123 85	151 75		842 26
1,945 50	3 60	1,949 10	Edmonton	1,483 32			356 00	109 78		1,949 10
2,014 30	3 60	2,017 90	Regina	1,283 30			385 50	49 10	300 00	2,017 90
4,506 76	9 00	4,515 76	Vancouver	3,766 58	503 17		66 90	179 11		4,515 76
98 67		98 67	Victoria				67 60	31 07		98 67
496 40	3 60	500 00	Yukon	500 00						500 00
1,474 49		1,474 49	Chief Electrical Engineer		18 75		469 82	985 92		1,474 49
2,480 87	3 60	2,484 47	Inspector Eastern Dominion	2,383 32			72 30	28 85		2,484 47
2,436 45	2 70	2,439 15	" Western "	1,846 66			480 80	111 69		2,439 15
7,738 49		7,738 49	General Contingencies					7,738 49		7,738 49
1,005 14		1,005 14	Printing					1,005 14		1,005 14
446 65		446 65	Stationery					446 65		446 65
243 89		243 89	International Electro-technical Commission					243 89		243 89
35,266 80	38 40	35,305 20	Totals	13,563 18	2,780 08	305 50	6,383 17	11,973 27	300 00	35,305 20

Inland Revenue Department, Ottawa, June 1, 1912.

W. J. GERALD, *Deputy Minister.*

No. 24.—STATEMENT showing the Amounts voted and the Expenditures for each service for the year ended March 31, 1912.

Services.	Grants.	Expenditures.	Over Expenditures.	Under Expenditures.
	$ cts.	$ cts.	$ cts.	$ cts.
Minister's salary	7,000 00	7,000 00	.....	.....
Departmental salaries	106,937 50	96,317 48	.....	10,620 02
" contingencies	8,000 00	7,994 19	.....	5 81
Excise salaries	477,000 00	461,573 14	.....	15,426 86
" contingencies	97,000 00	96,974 60	.....	25 40
Duty pay at large distilleries and other factories	14,000 00	13,297 57	.....	702 43
Duty pay other than special survey	1,500 00	1,337 50	.....	162 50
Preventive service, salaries and contingencies	13,000 00	10,314 78	.....	2,685 22
Tobacco stamps	93,000 00	93,000 00	.....	.....
Excise Commission to Customs Officers	10,000 00	3,809 10	.....	6,190 90
Tobacco stamps commission	100 00	.....	.....	100 00
Technical translation	200 00	138 91	.....	61 09
Provisional allowance	13,000 00	10,123 71	.....	2,876 29
Methylated spirits, contingencies	67,000 00	66,621 43	.....	378 57
Weights and Measures, salaries	80,100 00	78,673 39	.....	1,426 61
" contingencies	47,000 00	44,082 63	.....	2,917 37
Gas and electric light salaries	47,450 00	47,383 78	.....	66 22
" contingencies	33,000 00	32,910 00	.....	90 00
Adulteration of food, salaries and contingencies	30,000 00	21,847 70	.....	8,152 30
Minor expenditures	500 00	154 86	.....	345 14
Export of electric power	1,000 00	380 52	.....	619 48
International Bureau of Weights and Measures	216 00	209 37	.....	6 63
Proprietary or patent medicines	2,000 00	833 63	.....	1,166 37
International Electro-technical Commission	250 00	243 89	.....	6 11
Compensation vote *re* fire at laboratory	273 50	273 50	.....	.....
	1,149,527 00	1,095,495 68	.....	54,031 32

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

DR. No. 25.—STATEMENT showing the transactions in connections with the manufacture of Methylated Spirits for the year ended March 31, 1912. CR.

	Amounts.	Totals.
	$ cts.	$ cts.
To stock on hand March 31, 1911		5,813 58
Wood Naphtha, 2,234·19 Std. Galls. =3,753·40 Proof Galls. at 51c	1,139 44	
Alcohol, 8,322·63 Proof Galls. at 20c	1,664 53	
Methylated Spirits, 1,847·24 Std. Galls. =3,053·97 Proof Galls:		
1,170·63 Std. Galls. at 55c	643 85	
45·45 " at 65c	29 59	
420·20 " at 65c	273 13	
210·96 " at 75c	158 22	
Barrels, 243 at $4, 109 at $3	1,299 00	
Drums, 4 at $4, 11 at $10	126 00	
Pyrodine on hand	479 82	
Methylated Spirits sold and not paid up to March 31, 1911:		
1826·92 Std. Galls. =3,025·56 Proof Galls:		1,317 09
212·46 Std. Galls. at 53c	112 61	
478·11 " 55c	262 96	
387·21 " 63c	243 93	
402·57 " 65c	261 67	
346·57 " 75c	259 92	
Barrels, 34 at $4, Drums, 4 at $10	176 00	
Barrels returned and not paid up to March 31, 1911, 60 at $4		240 00
Alcohol, &c., bought, taken in stock and unpaid up to March 31, 1912:		9,496 20
25,738·46 Proof Galls. at 20c	5,147 69	
Wood Naphtha 3,428·8 Std. Galls. =5,725·56 Proof Galls, at 72c	2,468 51	
Barrels 370 at $4, Drums, 40 at $10	1,880 00	
Disbursments for purchases of material, &c.:—		61,574 87
Alcohol, 149,429·08, Proof Galls. at 20c	29,885 83	
Wood Naphtha, 19,689·51 Std. Galls. =32,914·59 Proof		

	Amounts.	Totals.
	$ cts.	$ cts.
By cash received on account of Methylated Spirits, &c., sold during the year ended March 31, 1912		93,083 90
Methylated Spirits, 118,599·98 S. Galls =196,409·54 Proof Galls:		
19,863·39 Std. Galls. at 53c	10,527 50	
34,919·69 " at 55c	19,205 60	
701·50 " at 60c	420 89	
20,214·56 " at 63c	12,734 92	
31,677·62 " at 65c	20,590 28	
11,223·22 " at 75c	8,417 20	
Barrels 4,087 at $4, 40 at $5, 108 at $3	16,872 00	
Drums 402 at $10, 24 at $12	4,308 00	
Carboy 86, 1 Can 50c., 1 Can 26c. and freight 76c.	7 51	
Methylated Spirits sold and not paid up to March 31, 1912:		3,371 57
4,050·81 Std. Galls. =8,198·58 Proof Galls:		
1,925·27 Std. Galls. at 53c	1,020 39	
1,235·87 " at 55c	679 72	
43·80 " at 60c	26 28	
807·68 " at 63c	508 82	
632·79 " at 65c	411 30	
305·40 " at 75c	229 06	
Barrels 74 at $4, Drums 20 at $10	496 00	
Barrels returned and unpaid for, up to March 31, 1912, 141 at $4		564 00
Drums returned and unpaid for, up to March 31, 1912, 56 at $10, 1 at $12		572 00
Alcohol bought and unpaid for, up to March 31, 1911: 13,155·75 Proof Galls, at 20c. and 190 brls. at $4		3,451 15
Stock on hand at the end of the year 1912:		6,553 79
Alcohol 1,730·19 Proof Galls. at 20c	346 04	
Wood Naphtha 4,860·65 Proof Galls. =2,910·57 Std. Galls. at 72c	2,095 61	
Wood Naphtha 5,689·47 Proof Galls. =3,386·59		

Galls. :—		
884·66 Std. Galls. at 54½c.	482 14	
11,104·76 " at 49¾	5,524 62	
4,313 50 " at 50¼c	2,167 54	
3,386·59 " =4,127½ W. M. at 47c. (80 brls. included)	1,939 92	
Barrels, 4,110 at $4, Drums, 414 at $10, 75=$800	21,380 00	
1 cooled air compressor and 1 tap	276 50	
Head Light Oil, 10 Galls. at 14½c., gasoline, 211 Galls. at 18½c, 180 Galls. at 20c., 70 Galls. at 19½ c., and 2 Cans at 75c= $91·81		
Less barrels returned 7 70	84 11	
	61,740 06	
Less freight and Cartage	165 79	
		10,221 52
To other expenses as follows :—		
Salaries (paid from the depart. Civil Govt. Vote)	4,925 50	
Salaries (paid from the Civ. Govt. Contingencies)	249 96	
Rent	1,071 85	
Special assistance	20 00	
Freight	2,766 90	
Stationery	12 39	
Printing	66 12	
Lithographing	17 99	
Sundries, including fuel, repairs &c	1,092 30	
Profit		18,443 20
Methylated Spirits manufactured during the year 198,734·09 Proof Galls.=120,000·71 Std. Galls.		
Total		107,106 46

Std. =4,127½ Galls. W. M. at 47c.	1,939 92	
Methylated Spirits 124·08 S. Galls.=205·50 Proof Galls. 42·46 Std. Galls. at 55c, and 81·62 Std. Galls. at 65c	76 40	
Barrels on hand 300 at $4, Drums 40 at $10, 4 at $4	1,616 00	
Pyrodine on hand	479 82	
Barrels destroyed 56		
		107,596 41
Less amount refunded on account of penalty imposed for violation of the M. S. Regulations		489 95
Alcohol used in manufacture, 168,394·23 Proof Galls. Wood Naphtha 19,055·02=31,843·43 Proof Galls.		
Total		107,106 46

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A

STATISTICS

APPENDIX A.—SPIRITS.

No. 1.—Return of Manufactures for

Divisions.	Licenses.		Materials taken for use.					
			Grain.					
	No.	Fees.	Malt.	Indian Corn.	Rye.	Oats.	Wheat.	Barley.
		$	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Belleville, Ont	1	250	212,240	3,293,172	112,188	....	....	....
Guelph "	1	250	257,660	3,531,600	409,260	26,160	353,320	....
Hamilton "	1	250	116,171	1,498,965	86,342	12,945	802,777	....
Perth "	2	500	204,068	....	....	....	....	....
Prescott "	1	250	180,628	3,585,008	585,434	19,560	89,280	....
Toronto "	2	500	1,396,839	16,872,377	2,781,666	276,230	....	....
Windsor "	1	250	1,070,020	18,506,400	3,136,880	155,900	290,500	....
Totals	9	2,250	3,437,626	47,287,522	7,111,770	490,795	1,535,877	....
Joliette, Que	1	250	1,849,500	1,693,275	2,036,225	....	....	....
Montreal "	1	250	....	....	....	....	....	....
Quebec "	1	250	189,485	1,863,760	54,696	....	74,969	....
St. Hyacinthe, Que	1	250	57,001	802,230	44,973	....	26,096	....
Totals	4	1,000	2,095,986	4,359,265	2,135,894	....	101,005	....
Winnipeg, Man.	1	250	64,972	391,663	126,107	....	18,673	....
Vancouver, B.C.	1	250	77,920	365,110	100,860	10,640	1,196,285	....
Grand Totals	15	3,750	5,676,504	52,403,560	9,474,631	501,435	2,851,840	....

No. 2.—Comparative Statement of Manufactures for

1911.								
Ontario	9	2,250	3,311,922	42,894,141	8,685,561	468,248	136,995	....
Quebec	4	1,000	2,313,457	7,402,065	2,323,293	....	174,000	....
Manitoba	1	125	15,825	156,613	6,855	280	....	3,600
British Columbia	1	250	125,300	1,627,775	304,379	15,680	650,076	....
Totals	15	3,625	5,766,504	52,080,594	11,320,088	484,208	961,071	3,600
1912.								
Ontario	9	2,250	3,437,626	47,287,522	7,111,770	490,795	1,535,877	....
Quebec	4	1,000	2,095,986	4,359,265	2,135,894	....	101,005	....
Manitoba	1	250	64,972	391,663	126,107	....	18,673	....
British Columbia	1	250	77,920	365,110	100,860	10,640	1,196,285	....
Totals	15	3,750	5,676,504	52,403,560	9,474,631	501,435	2,851,840	....

Inland Revenue Department,
Ottawa, June 1, 1912.

the Fiscal Year ended March 31, 1912.

Total Grain.	Molasses.	Used in Spirits Manufactured.		Proof Spirits Manufactured.	Duty Collected ex-Manufactory, on Deficiencies and Assessments.		Total Duty Collected ex-Manufactory, including License Fees.
		Grain.	Molasses.				
Lbs.	Lbs.	Lbs.	Lbs.	Galls.	Galls.	$ cts.	$ cts.
3,617,600	.....	3,500,000	.....	211,213·02	374·60	711 74	961 74
4,578,000	.....	4,578,000	.....	284,685·23	52·19	99 16	349 16
2,517,200	.....	2,517,200	.....	156,933·17	.....	.....	250 00
204,068	.....	201,434	.....	10,347·20	0·69	1 32	501 32
4,459,910	.....	4,377,180	.....	267,960·91	.....	.....	250 00
21,327,112	.....	21,255,112	.....	1,331,603·07	8,842·01	16,799 82	17,299 82
23,159,700	.....	23,324,700	.....	1,415,289·25	47·53	91 26	341 26
59,863,590	.....	59,753,626	.....	3,678,031·85	9,317·02	17,703 30	19,953 30
5,579,000	.....	5,596,150	.....	277,413·26	.....	.....	250 00
.....	8,682,660	.....	8,682,660	529,777·02	.....	.....	250 00
2,182,850	.....	2,294,350	.....	111,713·60	.....	.....	250 00
930,300	.....	930,300	.....	52,715·31	.....	.....	250 00
8,692,150	8,682,660	8,820,800	8,682,660	971,619·19	.....	.....	1,000 00
601,415	.....	609,165	.....	33,484·40	.....	.....	250 00
1,750,815	.....	1,764,015	.....	101,260 71	.....	.....	250 00
70,907,970	8,682,660	70,947,606	8,682,660	4,784,396·15	9,317·02	17,703 30	21,453 30

the Fiscal Years ended March 31, 1911 and 1912.

55,496,867	10,414,529	55,608,077	10,414,529	3,910,914·15	7,058·13	13,410 51	15,660 51
12,212,815	8,116,850	12,230,915	8,116,850	1,170,676·75	.....	.....	1,000 00
183,173	.....	175,423	.....	9,393 21	.....	.....	125 00
2,723,210	.....	2,712,010	.....	164,148·96	.....	.....	250 00
70,616,065	18,531,379	70,726,425	18,531,379	5,255,133·07	7,058·13	13,410 51	17,035 51
59,863,590	8,682,660	59,753,626	8,682,660	3,678,031·85	9,317·02	17,703 30	19,953 30
8,692,150	.....	8,820,800	.....	971,619·19	.....	.....	1,000 00
601,415	.....	609,165	.....	33,484·40	.....	.....	250 00
1,750,815	.....	1,764,015	.....	101,260·71	.....	.....	250 00
70,907,970	8,682,660	70,947,606	8,682,660	4,784,396·15	9,317·02	17,703 30	21,453 30

W. J. GERALD,
Deputy Minister.

APPENDIX A,—*Continued*—SPIRITS.

No. 3.—STATEMENT showing the transactions in the Distilleries in the

Divisions.	In Process Including Deficiencies Brought Forward.	Manufactured, including Surpluses.	Returned to Distillery for Redistillation.	
			Duty Paid.	In Bond.
	Gallons.	Gallons.	Gallons.	Gallons.
Belleville, Ont	17,299·50	211,213·02	.....	.....
Guelph "	19,105·08	284,685·23	.....	3,125·74
Hamilton "	11,510·95	156,933·17	.....	26.076·50
Perth "	1,460·61	10,347·20	.....	.....
Prescott "	2,669·28	267,960·91	372·42	.....
Toronto "	162,538·51	1,331,603·07	121·05	131,817·09
Windsor "	44,280·00	1,415,289·25	.....	441,497·75
Totals	258,863·93	3,678,031·85	493·47	602,517·08
Joliette, Que	15,609·87	277,413·26	.....	26·93
Montreal "	28,870·13	529,777·02	.....	.....
Quebec "	24,126·64	111,713·60	.....	.....
St. Hyacinthe "	13,669·35	52,715·31	.....	2,273·87
Totals	82,275·99	971,619·19	.....	2,300·80
Winnipeg, Man	267 36	33,484·40	.....	.....
Vancouver, B.C.	24,036·20	101,260·71	84·88	19·46
Grand Totals.	365,443·48	4,784,396·15	578·35	604,837·34

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912,

Dominion of Canada during the Fiscal Year ended March 31, 1912.

Received from Other Sources. Duty Paid.	Totals.	Warehoused.	Fusel Oil Written off.	Deficiences. on Which Duty was Collected.	In Process including Deficiencies. Carried forward.	Totals.
Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
2,499·98	231,012·50	188,738·50	1,751·94	374·60	40,147·46	231,012.50
1,085·85	308,001·90	285,266·07	1,056·88	52·19	21,626·76	308,001·90
451·68	194,972·30	187,570·29	143·76	.....	7,258·25	194,972·30
.....	11,807·81	10,561·43	.....	69	1,245·69	11,807·81
710·96	271,713·57	255,925·52	355·88	.....	15,432·17	271,713·57
2.007·02	1,628,086·74	1,503,854·04	6,328·89	8,842·01	109,061·80	1,628,086·74
830·73	1,901,897·73	1,857,260·65	20·12	.....	44,616·96	1,901,897·73
7,586·22	4,547,492·55	4,289,176·50	9,657·47	9,269·49	239,389·09	4,547,492·55
.....	293,050·06	276,455·52	.....	.....	16,594·54	293,050·06
124 92	558,772·07	515,796·75	6,593·73	.....	36.381·59	558,772·07
.....	135,840·24	135,197·64	529·16	.....	113·44	135,840·24
449·85	69,108·38	60,522·01	.....	.....	8,586·37	69,108·38
574·77	1,056,770·75	987,971·92	7,122·89	.....	61,675·94	1,056,770·75
.....	33,751·76	33,751·76	.....	.....	.....	33.751·76
1,519·82	126,921·07	101,498·20	128·11	.....	25,294·76	126,921·07
9,680·81	5,764,936·13	5,412,398·38	16,908·47	9,269·49	326,359·79	5,764,936·13

W. J. GERALD,
Deputy Minister.

APPENDIX A — *Continued* — SPIRITS.

DR. No. 4.— WAREHOUSE RETURN for the Fiscal Year ended March 31, 1912.

DIVISIONS.	Remaining in Warehouse from Last Year.	Warehoused.	Imported.	RECEIVED FROM OTHER DIVISIONS. Removed during Year.	RECEIVED FROM OTHER DIVISIONS. In Transit Last Year.	Totals.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Belleville, Ont.	1,369,105·27	*141·22 188,738·50		23,955·56		1,581,940·55
Brantford "	5,039·56			31,213·96		36,253·52
Guelph "	1,817,363·61	285,266·07		32,627·95	36·33	2,135,293·96
Hamilton "	772,801·90	187,570·29		90,982·63	36·81	1,051,391·63
Kingston "	7,550·33			44,440·82		51,991·15
London "	6,845·01			36,029·92		42,874·93
Ottawa "	31,570·05			169,041·16	4,555·81	205,167·02
Ottawa, Government Warehouse, Ont.	8,322·63			161,711·79		170,034·42
Ottawa, Department Laboratory, Ont				57·24		57·24
Perth, Ont.	87,994·52	10,561·43		83,450·41 ‡143·82	3,028·51	185,034·87
Peterborough "	12,076·33	*143·87		8,105·19		20,469·21
Port Arthur "	14,641·64			68,362·10		83,003·74
Prescott "	888,967·31	255,925·52		898·93		1,145,791·76
St. Catharines "	891·75			7,498·08		8,389·83
Stratford "	2,783·36			12,807·61		15,590·97
Toronto "	5,397,903·47	1,593,854·04		578,212·36	20,922·26	7,500,892·13
Windsor "	7,597,218·31	1,857,260·65		7,030·13	854·14	9,462,363·23
Totals	18,021,075·05	*285·09 4,289,176·50		‡143·82 1,356,425·84	29,433·86	23,696,540·16
Joliette, Que	738,892·49	*271·09 276,455·52		30,961·23		1,046,580·33
Montreal "	975,630·63	515,796·75		954,085·80	9,864·23	2,455,377·41
Quebec "	796,379·29	135,197·64		206,271·70	11,516·67	1,149,365·30
St. Hyacinthe "	366,369·08	†1,000·00 60,522·01 *11·98		52,213·68	3,919·33	484,036·08
Sherbrooke "	9,766·99		27,597·40	71,275·21		108,639·60

Three Rivers "	5,260·60	.....	.....	35,594·84	.....	40,855·44
Totals	2,892,299·08	†1,000·00 987,971·92 *283.07	27,597·40	1,350,402·46	25,300·23	5,284,854·16
St. John, N.B.	25,314·83	.....	.....	103,742·6[illegible]	1,776·06	130,833·52
Halifax, N.S.	6,171·88	.....	.....	23,444·64	1,792·28	31,408·80
Picton "	.....	.....	.....	3,169·09	430·32	3,599·41
Totals	6.171·88	.....	.....	26,613·73	2,222·60	35,008·21
Winnipeg, Man.	70,780·68	33,751·76	.....	583,786·87	13,401·36	701,720·67
Moose Jaw, Sask.	20,876·59	.....	.....	105.513·31	700 97	127,090·87
Calgary, Alta.	40,107·43	.....	.....	208,492·23	11,470 34	260,070·00
Vancouver, B.C.	356,099·37	101,498·20	84·88	162,338·60	9,228·46	629,249·51
Victoria, "	22,409·50	.....	.....	85,649·76	2,846 96	110,906·22
Totals	378,508·87	101,498·20	84·88	247.988·36	12,075·42	740,155·73
Dawson, Y.T.	797·65	.....	.....	4,196·00	.....	4,993·65
Sundries	8,612·54	.....	.....	.....	.....	8,612·54
Grand Totals	21,464,544·60	*568 16 †1,000·00 5,412,398·38	27,682·28	‡143·82 3,987,161·43	96,380·84	30,989,879·51

*Surplus in Warehouse. † re-Warehoused. ‡ Warehoused twice.

APPENDIX A — *Continued* — SPIRITS.

No. 4.—Warehouse Return for the Fiscal Year ended March 31, 1912 Cr.

Divisions.	Entered for Consumption.		Removed to Other Divisions.		Taken for Redistillation.	Free.		Exported.	Used in Bonded Factories.	Remaining in Warehouse.	Totals.
	Quality.	Duty.	Warehoused in Divisions to which Removed.	In Transit.		Legal Allowance	Other.				
	Gallons.	$ cts.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Belleville, Ont.	54,935·67	104,377·54	275,733·52	34,186·71	.....	11,602·69	2,914·63	859·55	8,374·65	1,193,333·13	1,581,940·55
Brantford, "	23,416·12	44,494·76	.....	.....	.....	.....	.....	.....	8,043·38	4,794·02	36,253·52
Guelph, "	193,742·19	368,115·99	144,656·44	1,565·26	3,125·74	44,819·19	1,292·60	26,942·02	.....	1,719,150·52	2,135,293·96
Hamilton, "	151,591·75	287,709·81	75,068·08	3,007·51	26,076·50	18,216·13	110·35	2,457·70	23,379·10	751,181·51	1,051,391·63
Kingston, "	37,229·21	70,738·53	.....	.....	.....	.....	.....	2·83	10,836·01	3,923·10	51,991·15
London, "	38,713·08	73,557·41	.....	.....	.....	.....	.....	15·54	.....	4,146·31	42,874·93
Ottawa, "	171,674·22	326,558·21	189·07	.....	.....	.....	314·70	.....	2,999·30	29,997·73	205,167·02
Ottawa, Govt. W.H.	.....	.....	.....	.....	.....	.....	.....	.....	*168,304·23	1,736·19	170,034·42
Ottawa, Dept. Lab'y.	.....	.....	.....	.....	.....	.....	57·24	.....	.....	.....	57·24
Perth, Ont.	99,544·52	189,207·30	3,671·98	344·90	.....	2,213·84	.....	.....	.....	79,259·63	185,034·87
Peterborough, "	19,972·85	37,958·74	.....	.....	.....	.....	.....	.....	.....	496·36	20,469·21
Port Arthur, "	66,507·05	126,409·13	1,036·55	.....	.....	.....	.....	1·51	.....	15,458·63	83,003·74
Prescott, "	51,116·93	97,139·95	259,487·12	1,289·99	.....	8,008·95	1,239·56	1,154·52	.....	823,494·69	1,145,791·76
St. Catharines, "	7,135·71	13,557·90	.....	.....	.....	.....	.....	.....	.....	1,254·12	8,389·83
Stratford, "	13,358·19	25,385·68	.....	.....	.....	.....	.....	.....	.....	2,232·78	15,590·97
Toronto, "	651,965·25	1,225,789·74	1,616,201·83	46,856·16	131,817·09	31,723·11	853·67	5,113·55	126,209·94	4,890,151·53	7,500,892·13
Windsor, "	241,547·04	453,132·40	791,081·03	17,108·39	441,497·75	172,492·85	863·34	260,728·11	28,209·76	7,508,834·96	9,462,363·23
Totals	1,822,449·78	3,444,133·09	3,167,125·62	104,358·92	602,517·08	289,076·76	7,946·09	297,275·33	*168,304·23 208,044·14	17,029,442·21	23,696,540·16
Joliette, Que.	43,104·46	82,172·78	249,465·31	9,845·03	26·93	2,172·81	.....	.....	.....	741,965·79	1,046,580·33
Montreal, "	1,016,797·92	1,918,888·37	231,772·69	8,513·42	.....	1,103·81	40·46	62·98	39,652·28	1,157,434·15	2,455,377·41
Quebec, "	247,910·50	471,386·60	175,802·17	5,850·18	.....	5,686·36	1,018·20	.....	14,077·87	699,020·02	1,149,365·30
St. Hyacinthe, "	60,072·88	114,216·24	83,635·15	6,288·52	2,273·87	1,834·37	726·13	148·94	17,322·84	311,733·38	484,036·08
Sherbrooke, "	68,912·34	139,240·48	859·46	.....	.....	.....	.....	.....	134,679·37	4,188·43	108,639·60
Three Rivers, "	36,351·01	69,124·19	.....	.....	.....	.....	.....	.....	.....	4,504·45	40,855·44
Totals	1,473,149·11	2,795,028·66	741,534·78	30,496·85	2,300·80	10,797·35	1,784·79	211·92	134,679·37 71,052·99	2,918,846·20	5,284,854·16

St. John, N. B.	95,310·34	181,196 36	.....	22·85	.....	.....	.....	.....	16,425·31	19,075·02	130,833·52
Halifax, N.S.	25,229·51	47,977 48	36·29	.....	.....	.....	.....	153·50	.....	5,989·50	31,408·80
Picton, "	3,370·41	6,405 60	.....	.....	.....	.....	.....	.....	.....	229·00	3,599·41
Totals	28,599·92	54,383 08	36·29	.....	.....	.....	.....	153·50	.....	6,218·50	35,008·21
Winnipeg, Man.	526,460·96	1,000,080 00	35,631·00	1,526·88	.....	.....	.....	6·90	46,418·40	91,676·53	701,720·67
Moose Jaw, Sask.	98,033·60	186,406 76	.....	.....	.....	.....	6·95	.....	.....	29,050·32	127,090·87
Calgary, Alta.	203,347·61	386,404 88	1,664·75	.....	.....	.....	.....	.....	.....	55,057·64	260,070·00
Vancouver, B.C.	225,604·70	428,663 61	37,128·40	.....	19·46	5,507·03	1,445·76	192·28	5,773·14	353,578 74	629,249·51
Victoria, "	86,504·18	164,363 24	4,040·59	.....	.....	.....	132·16	929·39	.....	19,299·90	110,906·22
Totals	312,108·88	593,026 85	41,168·99	.....	19·46	5,507·03	1,577·92	1,121·67	5,773·14	372,878·64	740,155·73
Dawson, Y.T.	2,922·54	5,552 84	.....	.....	.....	.....	.....	.....	.....	2,071·11	4,993·65
Sundries	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,612·54	8,612·54
Grand Totals	4,562,382·74	8,646,212 52	3,987,161·43	136,405·50	604,837·34	305,381·14	11,315·75	298,769·32	*168,304·23 †34,679·37 347,713·98	20,532,928·71	30,989,879·51

* Used in the manufacture of Methylated Spirits at the Government Warehouse, Ottawa.
† " " Crude Fulminate.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A—*Continued*—SPIRITS.

DR. No. 5.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1911 and 1912.

PROVINCES	Remaining in Warehouse from last Year.	Warehoused.	Imported.	RECEIVED FROM OTHER DIVISIONS.		Totals.
				Removed during Year.	In Transit last Year.	
1911.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Ontario	18,344,548·54	4,693,780·77	116,128·16	1,218,878·83	25,390·72	24,398,727·02
Quebec	2,557,964·37	1,162,695·56	*231·32 35,259·21	1,324,636·80	10,149·87	5,090,937·13
New Brunswick	23,471·72	.....	.....	94,518·21	585·27	118,575·20
Nova Scotia	5,560·49	.....	.....	30,209·38	226·57	35,996·44
Manitoba	66,251·67	9,125·85	.....	472,190·77	19,062·32	566,630·61
Saskatchewan	18,418·23	.....	.....	69,112·72	680·57	88,211·52
Alberta	35,034·70	.....	.....	158,900·88	4,975·47	198,911·05
British Columbia	331,070·01	149,415·27	.....	232,270·91	12,835·29	725,591·48
Yukon Territory	834·12	+9·79	.....	3,821·86	.....	4,665·77
Sundries	8,612·54	.....	.....	.....	.....	8,612·54
Totals	21,391,766·39	+9·79 6,015,017·45	*231·32 151,387·37	3,601,540·36	73,906·08	31,236,858·76

1912.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Ontario	18,021,075·05	*285·09 4,289,176·50	.....	‡143·82 1,356,425·84	29,433·86	23,696,540·16
Quebec	2,892,299·08	987,971·92 †1,000·00 *283·07	29,597·40	1,350,402·46	25,300·23	5,284,854·16
New Brunswick	25,314·83	.....	.....	103,742·63	1,776·06	130,833·52
Nova Scotia	6,171·88	.....	.....	26,613·73	2,222·60	35,008·21
Manitoba	70,780·68	33,751·76	.....	583,786·87	13,401·36	701,720·67
Saskatchewan	20,876·59	.....	.....	105,513·31	700·97	127,090·87
Alberta	40,107·43	.....	.....	208,492·23	11,470·34	260,070·00
British Columbia	378,508·87	101,498·20	84·88	247,988·36	12,075·42	740,155·73
Yukon Territory	797·65	.....	.....	4,196·00	.....	4,993·65
Sundries	8,612·54	.....	.....	.....	.....	8,612·54
Totals	21,464,544·60	5,412,398·38 †1,000·00 568·16	29.682,28	‡143·82 3,987,161·43	96,380·84	30,989,879·51

*Surplus in warehouse. †Rewarehoused. ‡Warehoused twice.

APPENDIX A—*Continued*—SPIRITS.

No. 5 —COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1911 and 1912—*Concluded.* CR.

PROVINCES.	ENTERED FOR CONSUMPTION.		REMOVED TO OTHER DIVISIONS.		Taken for Redistillation.	FREE.		Exported.	Used in Bonded Factories.	Remaining in Warehouse.	Totals.
	Quantity.	Duty.	Warehoused in Divisions to which Removed.	In Transit.		Legal Allowance.	Other.				
1911.	Gallons.	$ cts.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Ontario	1,716,378·48	3,278,180·84	2,839,082·92	80,564·05	780,655·58	217,141·45	13,755·16	272,366·88	*156,726·09 300,981·36	18,021,075·05	24,398,727·02
Quebec	1,359,881·23	2,584,955·96	700,047·78	14,374·53	1,056·05	7,088·96	11,360·63	290·04	104,538·83	2,892,299·08	5,090,937·13
New Brunswick	82,458·11	156,764·78	.....	.....	.....	.....	.....	.....	10,802·26	25,314·83	118,575·20
Nova Scotia	29,119·12	55,378·29	604·28	.....	.....	.....	.....	101·16	.....	6,171·88	35,996·44
Manitoba	451,290·26	857,018·91	12,302·67	1,442·26	.....	.....	32·11	2·91	30,779·72	70,780·68	566,630·61
Saskatchewan	67,334·93	128,020·67	.....	.....	.....	.....	.....	.....	.....	20,876·59	88,211·52
Alberta	158,803·62	301,747·71	.....	.....	.....	.....	.....	.....	.....	40,107·43	198,911·05
British Columbia	277,318·30	526,924·41	52,502·71	.....	107·58	5,815·10	1,641·33	1,201·76	8,495·83	378,508·87	725,591·48
Yukon Territory	3,868·12	7,349·40	.....	.....	.....	.....	.....	.....	.....	797·65	4,665·77
Sundries	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,612·54	8,612·54
Totals	4,146,452·17	7,896,340·97	3,604,540·36	96,380·84	781,819·21	230,045·51	26,789·23	273,962·75	*156,726·09 455,598·00	21,464,544·60	31,236,858·76

1912.	Gallons.	$ cts.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Ontario	1,822,449·78	3,444,133 09	3,167,125·62	104,358·92	602,517·08	289,076·76	7,946·09	297,275·33	*168,304·23 208,044·14	17,029,442·21	23,696,540·16
Quebec	1,473,149·11	2,795,028 66	741,534·78	30,496·85	2,300·80	10,797·35	1,784·79	211·92	†34,679·37 71,052·99	2,918,846·20	5,284,854·16
New Brunswick	95,310·34	181,196 36	.....	22·85	.....	.....	.....	.....	16,425·31	19,075·02	130,833·52
Nova Scotia	28,599·92	54,383 08	36·29	.....	.....	.....	.....	153·50	.....	6,218·50	35,008·21
Manitoba	526,460·96	1,000,080 00	35,631·00	1,526 88	.....	.....	.....	6·90	46,418·40	91,676·53	701,720·67
Saskatchewan	98,033·60	186,406 76	.....	.....	.....	.....	6·95	.....	.....	29,050·32	127,090·87
Alberta	203,347·61	386,404 88	1,664·75	.....	.....	.....	.....	.....	.....	55,057·64	260,070·00
British Columbia	312,108·88	593,026 85	41,168·99	.....	19·46	5,507·03	1,577·92	1,121·67	5,773·14	372,878·64	740,155·73
Yukon Territory	2,922·54	5,552 84	.....	.....	.....	.....	.....	.....	.....	2,071·11	4,993·65
Sundries	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,612·54	8,612·54
Totals	4,562,382·74	8,646,212 52	3,987,161·43	136,405·50	604,837·34	305,381·14	11,315·75	298,769·32	*168,304·23 †34,679·37 347,713·98	20,532,928·71	30,989,879·51

*Used in the manufacture of Methylated Spirits at the Government Warehouse, Ottawa.
† " " Crude Fulminate.

	1911.	1912.
Total duty collected ex-manufactory and ex-warehouse	$ 7,909,751 48	$ 8,663,915 82
License fees	3,625 00	3,750 00
	$ 7,913,376 48	$ 8,667,665 82

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—MALT.

No. 6.—RETURN of Manufactures for the Fiscal Year ended March 31, 1912.

Divisions.	Licenses.		Grain Steeped.	Grain used in Malt Manufactured.	Malt.			Total Duty Collected ex-manufactory, including License Fees.
	No.	Fees.			Manufactured.	Paid Duty.	Warehoused.	
		$ cts.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	$ cts,
Belleville, Ont..	1	50 00	284,031	284,031	219,658	.....	219,658	50 00
Brantford " .	1	50 00	613,378	612,930	489,548	.....	489,548	50 00
Guelph " .	5	650 00	7,629,101	7,862,501	6,274,666	.....	6,274,666	650 00
Hamilton "	2	350 00	5,563,400	5,590,940	4,456,400	.....	4,456,400	350 00
Kingston " .	1	50 00	340,129	294,697	231,522	.....	231,522	50 00
London " .	2	400 00	4,909,940	4,772,840	3,740,705	.....	3,740,705	400 00
Owen Sound, O.	1	200 00	5,877,800	5,694,800	4,554,540	.....	4,554,540	200 00
Perth "	2	100 00	277,045	260,975	211,475	.....	211,475	100 00
Peterborough "	1	50 00	451,060	443,620	349,440	.....	349,440	50 00
Prescott "	3	200 00	380,522	424,426	322,898	.....	322,898	200 00
St. Catharines "	1	50 00	428,300	448,550	359,600	.....	359,600	50 00
Stratford "	1	200 00	9,641,000	9,583,300	7,550,890	.....	7,550,890	200 00
Toronto "	9	1,350 00	12,661,953	12,678,180	9,818,615	.....	9,818,615	1,350 00
Windsor "	1	200 00	5,544,500	5,598,100	4,490,370	.....	4,490,370	200 00
Totals.....	31	3,900 00	54,602,159	54,549,890	43,070,327	.....	43,070,327	3,900 00
Montreal, Que..	4	800 00	51,079,640	50,997,540	40,349,318	.....	40,349,318	800 00
Quebec, " .	1	150 00	1,060,664	1,060,832	860,183	347,576	512,607	5,363,60
Totals.....	5	950 00	52,140,304	52,058,372	41,209,501	347,576	40,861,925	6,163 60
Winnipeg, Man.	3	500 00	34,940,690	34,401,050	27,658,585	.....	27,658,585	500 00
Calgary, Alta..	2	300 00	3,620,440	3,626,155	2,941,746	.....	2,941,746	300 00
Victoria, B.C..	1	100 00	1,140,212	1,134,906	913,167	.....	913,167	100 00
Grand Totals.	42	5,950 00	146,443,805	145,770,373	115,793,326	347,576	115,445,750	10,963 60

W. J. GERALD,

Deputy Minister.

INLAND REVENUE DEPARTMENT,

OTTAWA, June 1, 1912.

APPENDIX A.—*Continued*—MALT.

No. 7.—Comparative Statement of Manufactures for the Fiscal Years ended March 31, 1911 and 1912.

Provinces.	Licenses.		Grain Steeped.	Grain used in Malt Manufactured.	Malt.			Total Duty Collected ex-manufactory, including License Fees.
	No.	Fees.			Manufactured.	Paid Duty.	Warehoused.	
1911.		$ cts.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	$ cts.
Ontario	34	4,100 00	50,079,158	49,955,333	39,441,709	.....	39,441,709	4,100 00
Quebec	5	950 00	46,205,745	46,209,546	36,625,516	.....	36,625,516	950 00
Nova Scotia	1	150 00	78,212	118,584	91,952	.....	91,952	150 00
Manitoba	4	600 00	24,254,530	23,963,650	19,614,271	.....	19,614,271	600 00
Alberta	3	350 00	4,269,425	4,269,430	3,484,192	.....	3,484,192	350 00
British Columbia	1	50 00	1,039,077	1,029,971	828,692	.....	828,692	50 00
Totals	48	6,200 00	125,926,147	125,546,514	100,086,332	.....	100,086,332	6,200 00
1912.								
Ontario	31	3,900 00	54,602,159	54,549,890	43,070,327	.....	43,070,327	3,900 00
Quebec	5	950 00	52,140,304	52,058,372	41,209,501	347,576	40,861,925	6,163 60
Manitoba	3	500 00	34,940,690	34,401,050	27,658,585	.....	27,658,585	500 00
Alberta	2	300 00	3,620,440	3,626,155	2,941,746	.....	2,941,746	300 00
British Columbia	1	100 00	1,140,212	1,134,906	913,167	.....	913,167	100 00
Totals	42	5,750 00	146,443,805	145,770,373	115,793,326	347,576	115,445,750	10,963 60

W. J. GERALD,
Deputy Minister.

Inland Revenue Department,
Ottawa, June 1, 1912.

APPENDIX A.—*Continued*—MALT.

DR. No. 8.—WAREHOUSE RETURN for

Remaining in Warehouse from last year.	Warehoused.	Increases.	Received from other Divisions. Removed during year.	Received from other Divisions. In Transit last year.	Imported.	Totals.	Divisions.
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	
59,287	219,658	1,208	280,000	.....	.....	560,153	....Belleville, Ont.
112,660	489,548	3,840	157,812	.....	3,000	766,860	....Brantford "
3,161,650	6,274,666	69,330	3,004,070	40,000	.....	12,549,716	....Guelph "
1,921,646	4,456,400	47,266	1,280,000	40,000	.....	7,745,312	....Hamilton "
63,148	231,522	6,430	320,000	.....	.....	621,100	....Kingston "
2,473,307	3,740,705	42,886	932,000	.....	1,466	7,190,364	....London "
55,500	.....	.....	1,358,800	.....	.....	1,414,300	....Ottawa "
1,917,520	4,554,540	30,608	516,840	.....	.....	7,019,508	....Owen Sound "
8,344	211,475	678	2,101,400	40,000	.....	2,361,897	....Perth "
165,870	349,440	5,331	290,700	.....	.....	811,341	....Peterborough "
2,030	.....	.....	1,410,000	40,000	1,376	1,453,406	....Port Arthur "
297,214	322,898	5,647	2,475,000	.....	.....	3,100,759	....Prescott "
119,820	359,600	3,412	1,098,768	40,000	.....	1,624,600	....St. Catharines "
1,841,962	7,550,890	103,920	174,000	.....	.....	9,670,772	....Stratford "
6,728,612	9,818,615	129,889	10,979,650	36,000	23,500	27,716,266	....Toronto "
1,072,797	4,490,370	21,840	710,000	.....	2,160	6,297,167	....Windsor "
20,001,367	43,070,327	475,285	27,089,040	236,000	31,502	90,903,521	.....Totals.....
25,436	.....	5,044	1,840,000	40,000	.....	1,910,480	....Joliette, Que.
9,249,696	40,349,318	120,915	1,271,633	67,760	44,186	51,103,508	....Montreal "
.....	512,607	.....	469,600	51,240	9,410	1,042,857	....Quebec "
.....	.....	.....	45,000	.....	.....	45,000	....St. Hyacinthe "
9,600	.....	.....	1,090,000	40,000	.....	1,139,600	....Sherbrooke "
.....	.....	.....	40,000	.....	.....	40,000	....Three Rivers "
9,284,732	40,861,925	125,959	4,756,233	199,000	53,596	55,281,445	..... Totals.....
.....	.....	.....	1,280,000	40,000	3,024	1,323,024	....St. John, N.B.
111,438	.....	.....	2,746,000	40,000	20,080	2,917,518	....Halifax, N.S
4,329,677	27,658,585	173,409	1,480,000	.....	7,390	33,649,061	....Winnipeg, Man.
.....	.....	.....	1,560,000	80,000	.....	1,640,000	....Moose Jaw, Sask.
1,323,205	2,941,746	33,023	2,120,000	100,000	60,920	6,578,894	....Calgary, Alta.
196,034	.....	299	6,632,280	254,311	351,030	7,433,954	....Vancouver, B. C.
59,546	913,167	.....	2,962,000	80,000	32,720	4,047,433	....Victoria, B.C.
255,580	913,167	299	9,594,280	334,311	383,750	11,481,387	.....Totals.....
54,020	.....	2,397	.....	.....	53,120	109,537	....Dawson, Y.T
35,366,019	115,445,750	810,372	50,625,553	1,029,311	613,382	203,884,387	.....Grand Totals

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

the Fiscal Year ended March 31, 1912. CR.

Entered for Consumption.		Removed to other Divisions.		Exported.	Free.	Written off.	Remaining in Warehouse.	Totals.
Quantity.	Duty.	Warehoused in Divisions to which Removed.	In Transit.					
Lbs.	$ cts.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
432,795	6,491 93	.....	.....	.....	.....	.....	127,358	560,153
654,052	9,840 78	.....	.....	.....	.....	.....	112,808	766,860
7,188,612	107,829 18	2,671,820	.....	.....	.....	.....	2,689,284	12,549,716
4,671,746	70,076 19	1,609,420	.....	.....	.....	.....	1,464,146	7,745,312
453,728	6,805 92	.....	.....	.....	.....	.....	167,372	621,100
4,898,591	73,479 42	.....	.....	.....	.....	.....	2,291,773	7,190,364
1,329,200	19,938 00	.....	.....	.....	.....	.....	85,100	1,414,300
624,684	9,370 26	4,293,560	120,000	40,000	.....	.....	1,941,264	7,019,508
2,118,000	31,770 00	.....	.....	.....	204,068	4,148	35,681	2,361,897
718,496	10,777 44	.....	.....	.....	.....	.....	92,845	811,341
1,376,384	20,647 76	.....	.....	.....	.....	.....	77,022	1,453,406
3,050,369	45,755 56	.....	.....	.....	.....	.....	50,390	3,100,759
1,422,980	21,344 70	.....	.....	.....	.....	.....	201,620	1,624,600
1,004,380	15,065 70	5,854,840	87,200	.....	.....	.....	2,724,352	9,670,772
20,372,526	305,822 87	200,000	.....	.....	.....	.....	7,143,740	27,716,266
3,444,320	51,720 61	.....	.....	.....	493,271	.....	2,359,576	6,297,167
53,760,863	806,736 32	14,629,640	207,200	40,000	697,339	4,148	21,564,331	90,903,521
.....	.....	.....	.....	.....	1,849,500	.....	60,980	1,910,480
25,193,504	377,902 57	17,225,400	228,000	180,000	.....	.....	8,276,604	51,103,508
1,042,857	15,642 78	.....	.....	.....	.....	.....	.....	1,042,857
45,000	675 00	.....	.....	.....	.....	.....	.....	45,000
1,086,700	16,300 50	.....	.....	.....	.....	.....	52,900	1,139,600
40,000	600 00	.....	.....	.....	.....	.....	.....	40,000
27,408,061	411,120 85	17,225,400	228,000	180,000	1,849,500	.....	8,390,484	55,281,445
1,323,024	19,875 60	.....	.....	.....	.....	.....	.....	1,323,024
2,882,018	43,230 27	.....	.....	10,800	.....	.....	24,700	2,917,518
9,777,660	146,664 91	18,364,233	920,000	64,000	58,000	3,200	4,461,968	33,649,061
1,636,900	24,553 50	.....	.....	.....	.....	.....	3,100	1,640,000
5,982,357	89,735 45	.....	.....	.....	.....	.....	596,537	6,578,894
7,237,980	108,569 76	.....	.....	.....	.....	35,000	160,974	7,433,954
3,590,320	53,854 92	406,280	.....	.....	.....	.....	50,833	4,047,433
10,828,300	162,424 68	406,280	.....	.....	.....	35,000	211,807	11,481,387
82,764	1,241 44	.....	.....	.....	.....	.....	26,773	109,537
113,681,947	1,705,583 02	50,625,553	1,355,200	294,800	2,604,839	42,348	35,279,700	203,884,387

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—MALT.

DR. No. 9.—COMPARATIVE STATEMENT of Warehouse Returns for the

Remaining in Warehouse from last year.	Warehoused	Increases.	Received from other Divisions. Removed during year.	Received from other Divisions. In Transit last year.	Imported.	Totals.	Provinces.
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	1911.
24,119,591	39,441,709	579,026	16,675,536	262,650	140,431	81,218,943	Ontario
8,009,239	36,625,516	110,273	4,443,883	154,000	31,920	49,374,831	Quebec
.....	.....	.....	1,236,000	40,000	.....	1,276,000	New Brunswick
199,469	91,952	2,438	1,932,000	.....	.....	2,225,859	Nova Scotia
2,062,788	19,614,271	112,398	1,534,000	.....	95,418	23,418,875	Manitoba
11,500	.....	1,349	1,040,000	.....	146,560	1,199,409	Saskatchewan
1,429,597	3,484,192	20,998	1,714,000	40,000	375,898	7,064,685	Alberta
265,123	828,692	.....	5,780,298	330,000	2,216,970	9,421,083	British Columbia
69,483	.....	12,553	.....	.....	66,640	148,676	Yukon Territory.
36,166,790	100,086,332	839,035	34,355,717	826,650	3,073,837	175,348,361	Totals
							1912.
20,001,367	43,070,327	475,285	27,089,040	236,000	31,502	90,903,521	Ontario
9,284,732	40,861,925	125,959	4,756,233	199,000	53,596	55,281,445	Quebec
.....	.....	.....	1,280,000	40,000	3,024	1,323,024	New Brunswick
111,438	.....	.....	2,746,000	40,000	20,080	2,917,518	Nova Scotia
4,329,677	27,658,585	173,409	1,480,000	.....	7,390	33,649,061	Manitoba
.....	.....	.....	1,560,000	80,000	.....	1,640,000	Saskatchewan
1,323,205	2,941,746	33,023	2,120,000	100,000	60,920	6,578,894	Alberta
255,580	913,167	299	9,594,280	334,311	383,750	11,481,387	British Columbia
54,020	.....	2,397	.....	.....	53,120	109,537	Yukon Territory.
35,360,019	115,445,750	810,372	50,625,553	1,029,311	613,382	203,884,387	Totals

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

Fiscal Years ended March 31, 1911 and 1912. Cr.

Entered for Consumption.		Removed to other Divisions.		Exported.	Free.	Written Off.	Remaining in Warehouse.	Totals.
		Warehoused in Divisions to which Removed.	In Transit.					
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
47,865,770	718,377 07	12,158,376	276,000	156,000	694,045	67,385	20,001,367	81,218,943
25,688,462	385,326 78	12,358,783	134,000	148,000	1,751,825	9,029	9,284,732	49,374,831
1,276,000	19,140 00	.....	.....	.....	.....	.....	.....	1,276,000
2,090,921	31,363 82	.....	.....	23,500	.....	.....	111,438	2,225,859
8,681,488	130,222 31	9,608,610	571,000	224,000	.....	4,100	4,329,677	23,418,875
1,199,409	17,991 13	.....	.....	.....	.....	.....	.....	1,199,409
5,741,480	86,122 19	.....	.....	.....	.....	.....	1,323,205	7,064,685
8,887,244	133,308 72	229,948	48,311	.....	.....	.....	255,580	9,421,083
94,656	1,419 87	.....	.....	.....	.....	.....	54,020	148,676
101,525,430	1,523,271 89	34,355,717	1,029,311	551,500	2,445,870	80,514	35,360,019	175,348,361
53,760,863	806,736 32	14,629,640	207,200	40,000	697,339	4,148	21,564,331	90,903,521
27,408,061	411,120 85	17,225,400	228,000	180,000	1,849,500	.....	8,390,484	55,281,445
1,323,024	19,875 60	.....	.....	.....	.....	.....	.....	1,323,024
2,882,018	43,230 27	.....	.....	10,800	.....	.....	24,700	2,917,518
9,777,660	146,664 91	18,364,233	920,000	64,000	58,000	3,200	4,461,968	33,649,061
1,636,900	24,553 50	.....	.....	.....	.....	.....	3,100	1,640,000
5,982,357	89,735 45	.....	.....	.....	.....	.....	596,537	6,578,894
10,828,300	162,424 68	406,280	.....	.....	.....	35,000	211,807	11,481,387
82,764	1,241 44	.....	.....	.....	.....	.....	26,773	109,537
113,681,947	1,705,583 02	50,625,553	1,355,200	294,800	2,604,839	42,348	35,279,700	203,884,387

	1911.	1912.
Total duty collected ex-manufactory and ex-warehouse.....	$1,523,271 89	$1,710,796 62
License fees.....	6,200 00	5,750 00
	$1,529,471 89	$1,716,546 62

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—MALT LIQUOR.

No. 10.—RETURN of Manufactures for the Fiscal Year ended March 31, 1912.

Divisions.	Licenses. No.	Licenses. Fees.	Malt used.	Other commodities used.	Malt Liquor manufactured.	Malt Liquor Exported.	Total Duty Collected, ex-Manufactory including License Fees.
		$ cts.	Lbs.	Lbs.	Galls.	Galls.	$ cts.
Belleville, Ont.	1	50 00	189,771	.....	91,787	.....	50 00
Brantford "	2	100 00	649,706	.....	272,520	.....	100 00
Guelph "	6	300 00	7,097,860	.....	3,459,100	.....	300 00
Hamilton "	2	100 00	4,603,919	.....	2,252,350	.....	100 00
Kingston "	2	100 00	454,215	.....	160,775	.....	100 00
London "	4	200 00	4,717,763	.....	1,938,844	.....	200 00
Ottawa "	2	100 00	1,682,992	.....	839,690	.....	100 00
Owen Sound "	5	250 00	687,675	.....	285,775	.....	250 00
Perth "	2	100 00	1,992,400	.....	1,017,070	.....	100 00
Peterborough "	2	100 00	718,246	.....	264,029	.....	100 00
Port Arthur "	3	150 00	1,393,959	.....	646,300	.....	150 00
Prescott "	3	150 00	2,809,774	.....	1,313,572	.....	150 00
St. Catharines "	2	100 00	1,426,560	.....	614,900	.....	100 00
Stratford "	3	150 00	501,168	.....	241,400	.....	150 00
Toronto "	12	600 00	18,904,581	.....	8,353,803	.....	600 00
Windsor "	2	100 00	2,317,350	.....	1,148,386	.....	100 00
Totals	53	2,650 00	50,147,939	.....	22,900,301	.....	2,650 00
Montreal, Que.	7	350 00	21,514,320	66,320	9,097,386	1,750	5,769 00
Quebec "	3	125 00	3,523,346	.....	1,421,298	.....	125 00
Sherbrooke "	1	50 00	1,087,380	.....	590,154	.....	50 00
Three Rivers "	1	25 00	40,000	.....	10,250	.....	25 00
Totals	12	550 00	26,165,046	66,320	11,119,088	1,750	5,969 00
St. John, N.B.	2	100 00	1,286,570		505,205		100 00
Halifax, N.S.	3	150 00	2,847,468	.....	933,917	310	150 60
Winnipeg, Man.	6	300 00	8,980,489	2,350	4,108,884	.....	484 50
Moose Jaw, Sask.	4	200 00	1,671,856	49,650	849,193	.....	6,206 00
Calgary, Alta.	5	250 00	5,887,050	114,630	2,677,484		20,780 60
Vancouver, B.C.	21	1,050 00	7,213,748	449,300	3,064,336	.....	44,364 70
Victoria "	7	350 00	3,409,924	58,750	1,327,008		6,051 34
Totals	28	1,400 00	10,623,672	508,050	4,391,344	.....	50,416 04
Dawson, Y.T.	1		82,764	.....	33,234	.....	.....
Grand Totals	114	5,600 00	107,692,854	740,970	47,518,647	2,060	86,756 14

* License fee paid in 1910-11.

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX A.—*Continued*—MALT LIQUOR.

No. 11.—Comparative Statement of Manufactures for the Fiscal Years ended March 31, 1911 and 1912.

Provinces.	Licenses.		Malt used.	Other Commodities used.	Malt Liquor manufactured.	Malt Liquor exported.	Total Duty collected, ex-manufactory including License Fees.
	No.	Fees.					
1911.		$ cts.	Lbs.	Lbs.	Galls.	Galls.	$ cts.
Ontario	58	2,950 00	44,849,749	190	20,054,906	1,585	2,960 30
Quebec	11	550 00	24,408,243	74,471	10,430,359	.....	3,381 57
New Brunswick	2	100 00	1,277,816	.....	484,986	.....	100 00
Nova Scotia	3	150 00	2,089,501	687	757,920	.....	162 00
Manitoba	6	300 00	8,275,370	1,343	3,549,234	.....	372 80
Saskatchewan	4	200 00	1,190,720	30,200	557,587	.....	3,881 20
Alberta	5	250 00	5,531,141	104,800	2,465,648	.....	15,165 30
British Columbia	30	1,475 00	8,669,175	277,256	3,415,287	.....	26,769 84
Yukon Territory	2	100 00	94,656	.....	36,521	.....	100 00
Totals	121	6,075 00	96,386,371	488,947	41,752,448	1,585	52,893 01
1912.							
Ontario	53	2,650 00	50,147,939	.....	22,900,301	.....	2,650 00
Quebec	12	550 00	26,165,046	66,320	11,119,088	1,750	5,969 00
New Brunswick	2	100 00	1,286,570	.....	505,205	.....	100 00
Nova Scotia	3	150 00	2,847,468	.....	933,917	310	150 00
Manitoba	6	300 00	8,980,489	2,350	4,108,884	.....	484 50
Saskatchewan	4	200 00	1,671,856	49,650	849,193	.....	6,206 00
Alberta	5	250 00	5,887,050	114,600	2,677,481	.....	20,780 60
British Columbia	28	1,400 00	10,623,672	508,050	4,391,344	.....	50,416 04
Yukon Territory	1	*	82,764	.....	33,234	.....	.....
Totals	114	5,600 00	107,692,854	740,970	47,518,647	2,060	86,756 14

	1911.	1912.
	Galls.	Galls.
Exported	1,585	2,060

* License fee paid in 1910–11.

W. J. GERALD,
Deputy Minister.

Inland Revenue Department,
Ottawa, June 1, 1912.

APPENDIX A.—*Continued.*—TOBACCO.

No. 12.—Return of Manufactures for

Divisions.	Licenses.		Total Weight of Raw Leaf Tobacco and other Materials actually used.	Tobacco. At 5c. per lb.		
	Number.	Fees.		Manufactured.	Paid Duty.	Warehoused.
		$ cts.	Lbs.	Lbs.	Lbs.	Lbs.
Hamilton, Ont	1	50 00	1,368,394	1,281,128½	598,977	682,151½
Toronto "	2	100 00	241,845	256,559½	136,205½	120,354
Windsor "	4	200 00	181,472	183,212	183,212	.....
Totals	7	350 00	1,791,711	1,720,900	918,394½	802,505½
Joliette, Que	8	400 00	102,577¼	114,679⅖	114,679⅖	.....
Montreal "	33	1,600 00	12,624,880	11,206,187½	4,282,472½	6,923,715
Quebec "	7	350 00	2,736,861	2,746,973½	2,746,973½	.....
St. Hyacinthe "	1	50 00	.....	.....	.....	.....
Sherbrooke "	1	50 00	4,354,651½	4,600,503	4,560,745	39,758
Three Rivers "	2	100 00	45,480	45,480	45,480	.....
Totals	52	2,550 00	19,864,449¾	18,713,823⅖	11,750,350⅖	6,963,473
Pictou, N.S	1	50 00	14,133	15,039	15,039	.....
Charlottetown, P.E.I	3	150 00	194,983	221,368½	221,368½	.....
Winnipeg, Man	1	50 00	14,590	.....	.....	.....
Grand Totals	64	3,150 00	21,879,866¾	20,671,131 1/10	12,905,152⅗	7,765,978½

Inland Revenue Department,
Ottawa, June 1, 1912.

the Fiscal Year ended March 31, 1912.

Cigarettes. At $2.40 per M.			Cigarettes. At $7.00 per M.			Snuff. At 5c. per lb.		Total Duty Collected ex-Manufactory, including License Fees.
Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty	Warehoused.	Manufactured.	Paid Duty	
No.	No.	No.	No.	No.	No.	Lbs.	Lbs.	$ cts.
53,277,300	53,274,300	3,000	.....	.....	.....	.....	.....	157,857 17
.....	.....	.....	.....	.....	.....	.....	.....	6,910 28
.....	.....	.....	.....	.....	.....	.....	.....	9,360 60
53,277,300	53,274,300	3,000	.....	.....	.....	.....	.....	174,128 05
.....	.....	.....	.....	.....	.....	.....	.....	6,133 98
721,150,415	695,045,715	26,104,700	2,397,320	2,325,930	71,390	481,716	481,716	1,924,200 65
1,821,650	1,316,000	505,650	.....	.....	.....	52,352	52,352	143,474 77
.....	.....	.....	.....	.....	.....	.....	.....	50 00
.....	.....	.....	.....	.....	.....	.....	.....	228,087 24
.....	.....	.....	.....	.....	.....	.....	.....	2,374 00
722,972,065	696,361,715	26,610,350	2,397,320	2,325,930	71,390	534,068	534,068	2,304,320 64
.....	.....	.....	.....	.....	.....	.....	.....	801 95
.....	.....	.....	.....	.....	.....	.....	.....	11,218 43
5,335,500	3,828,900	1,506,600	.....	.....	.....	.....	.....	9,239 36
781,584,865	753,464,915	28,119,950	2,397,320	2,325,930	71,390	534,068	534,068	2,499,708 43

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued*—TOBACCO.

No. 13.—COMPARATIVE Statement of Manufactures for

Provinces.	Licenses.		Total Weight of Raw Leaf Tobacco and other Materials actually used.	Tobacco. At 5c. per lb.		
	Number.	Fees.		Manufactured.	Paid Duty.	Warehoused.
1911.		$ cts.	Lbs.	Lbs.	Lbs.	Lbs.
Ontario	9	450 00	1,775,951½	1,711,167½	948,973	762,194½
Quebec	51	2,425 00	16,889,586	16,260,160½	9,812,866	6,447,294½
Nova Scotia	1	50 00	11,656	12,114	12,114	.....
Prince Edward Island	3	150 00	206,122	223,020	223,020	.....
British Columbia	2	50 00	2,222	2,222	2,222	.....
Totals	66	3,125 00	18,885,537½	18,208,684 9/10	10,999,195 9/10	7,209,489
1912.						
Ontario	7	350 00	1,791,711	1,720,900	918,394½	802,505½
Quebec	52	2,550 00	19,864,449¾	18,713,823⅗	11,750,350⅗	6,963,473
Nova Scotia	1	50 00	14,133	15,039	15,039	.....
Prince Edward Island	3	150 00	194,983	221,368½	221,368½	.....
Manitoba	1	50 00	14,590	.....	.....	.....
Totals	64	3,150 00	21,879,866¾	20,671,131 1/10	12,905,152⅗	7,765,978½

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

the Fiscal Years ended March 31, 1911 and 1912.

Cigarettes. At $2.40 per M.			Cigarettes. At $7 per M.			Snuff. At 5c. per Lb.		Total Duty Collected ex-manufactory, including License Fees.
Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	
No.	No.	No.	No.	No.	No.	Lbs.	Lbs.	$ cts.
48,529,500	48,529,500	.....	.....	.....	.....	.....	.....	164,369 45
537,408,270	518,539,670	18,868,600	2,138,850	2,136,000	2,850	382,968	382,968	1,771,664 02
.....	.....	.....	.....	.....	.....	.....	.....	655 76
.....	.....	.....	.....	.....	.....	.....	.....	11,301 00
.....	.....	.....	.....	.....	.....	.....	.....	161 10
585,937,770	567,069,170	18,868,600	2,138,850	2,136,000	2,850	382,968	382,968	1,948,151 33
53,277,300	53,274,300	3,000	.....	.....	.....	.....	.....	174,128 05
722,972,065	696,361,715	26,610,350	2,397,320	2,325,930	71,390	534,068	534,068	2,304,320 64
.....	.....	.....	.....	.....	.....	.....	.....	801 95
.....	.....	.....	.....	.....	.....	.....	.....	11,218 43
5,335,500	3,828,900	1,506,600	.....	.....	.....	.....	.....	9,239 36
781,584,865	753,464,915	28,119,950	2,397,320	2,325,930	71,390	534,068	534,068	2,499,708 43

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—TOBACCO. MANUFACTURED BEFORE JUNE 1, 1908.

DR. No. 14.—WAREHOUSE RETURN for the Fiscal year ending March 31, 1912. CR.

Remaining in Warehouse from last year.		Totals.		Divisions.	Entered for Consumption.			Written off.	Remaining in Warehouse.	Totals.	
Tobacco.	Cigarettes.	Tobacco.	Cigarettes.		Tobacco at 25c. per lb.	Duty.	Cigarettes.		Tobacco.	Tobacco.	Cigarettes.
Lbs.	No.	Lbs.	No.		Lbs.	$ cts.	No.		Lbs.	Lbs.	No.
..	112,800	..	112,800	Quebec, Que.	.....	...	112,800		....	.....	112,800
461	.....	461	.....	St. John, N.B.	.....	...	.....		461	461	.....
4,347½	.....	4,347½	.....	Victoria, B.C.	168	42 00	.....		4,179½	4,347½	.....
19,719½	.....	19,719½	.....	Sundries	.....	...	.....		19,719½	19,719½	.....
24,528	112,800	24,528	112,800	Totals	168	42 00	112,800		24,360	24,528	112,800

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—TOBACCO. MANUFACTURED BEFORE JUNE 1, 1908.

DR. No. 15.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1911 and 1912. CR.

Remaining in Warehouse from Last Year.			Totals.			Provinces.	Entered for Consumption.		Ships' Stores.	Written off.		Taken for Re-working.	Remaining in Warehouse.		Totals.		
Tobacco.	Cigarettes.	Combination Tobacco.	Tobacco.	Cigarettes.	Combination Tobacco.		Tobacco at 25c. per lb.	Duty.	Tobacco.	Tobacco.	Cigarettes.	Combination Tobacco.	Tobacco.	Cigarettes.	Tobacco.	Cigarettes.	Combination Tobacco.
Lbs.	No.	Lbs.	Lbs.	No.	Lbs.	1911.	Lbs.	$ cts.	Lbs.	Lbs.	No.	Lbs.	Lbs.	No.	Lbs.	No.	Lbs.
1,043	.....	.....	1,043	.....	.....	Ontario	643	160 75	.....	400	.....	.....	.....	.....	1,043	.....	.....
.....	112,800	1,595	.....	112,800	1,595	Quebec	.....	.....	.....	.....	.....	1,595	.....	112,800	.....	112,800	1,595
461	.....	.....	461	.....	.....	New Brunswick	.....	.....	.....	.....	.....	.....	461	.....	461	.....	.....
144	.....	.....	144	.....	.....	P. Edward Isl.	.....	.....	.....	144	.....	.....	.....	.....	144	.....	.....
5,675	.....	.....	5,675	.....	.....	Brit. Columbia	448	112 00	105	774½	.....	.....	4,347½	.....	5,675	.....	.....
19,719½	.....	.....	19,719½	.....	.....	Sundries	.....	.....	.....	.....	.....	.....	19,719½	.....	19,719½	.....	.....
27,042½	112,800	1,595	27,042½	112,800	1,595	Totals	1,091	272 75	105	1,318½	.....	1,595	24,528	112,800	27,042½	112,800	1,595
						1912.											
.....	112,800	.....	.....	112,800	.....	Quebec	.....	.....	.....	.....	112,800	.....	.....	.....	.....	112,800	.....
461	.....	.....	461	.....	.....	New Brunswick	.....	.....	.....	.....	.....	.....	461	.....	461	.....	.....
4,347½	.....	.....	4,347½	.....	.....	Brit. Columbia	168	42 00	.....	.....	.....	.....	4,179½	.....	4,347½	.....	.....
19,719½	.....	.....	19,719½	.....	.....	Sundries	.....	.....	.....	.....	.....	.....	19,719½	.....	19,719½	.....	.....
24,528	112,800	.....	24,528	112,800	.....	Totals	168	42 00	.....	.....	112,800	.....	24,360	.....	24,528	112,800	.....

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—TOBACCO. UNDER

DR. No. 16.—WAREHOUSE RETURN for the

DIVISIONS.	REMAINING IN WAREHOUSE FROM LAST YEAR.		WAREHOUSED.			RECEIVED DIVI
	Tobacco.	Cigarettes	Tobacco.	Cigarettes.	Over-weight Cigarettes	Toba Removed during year.
	Lbs.	No.	Lbs.	No.	No.	Lbs.
Belleville, Ont.						2,260
Hamilton "	316,591		682,151½	3,000		
Ottawa "						
Owen Sound "						36,602
Perth "						19,600
Stratford "						32,746
Toronto "	10,828		120,354			
Totals..	327,419		802,505½	3,000		91,208
Montreal Que.	498,742½	3,272,000	6,923,715	26,104,700	71,390	
Quebec "	24,864	504,550		505 650		
Sherbrooke "	10,152½		39,758			5,440
Totals..	533,759	3,776,550	6,963,473	26,610,350	71,390	5,440
St. John, N.B.						3,160
Halifax, N.S.	1,450					29,235
Winnipeg, Man.				1,506,600		
Vancouver, B.C.	3,480					45,560
Victoria "	1,964					189,775
Totals	5,444					235,335
Grand Totals	868,072	3,776,550	7,765,978½	28,119,950	71,390	364,378

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

AMENDED RATES OF DUTY, JUNE 1, 1908.

Fiscal Year ended March 31, 1912.

FROM OTHER SIONS.		TOTALS.			ENTERED FOR CONSUMPTION.			Duty.
cco.	Cigarettes							
In Transit last year.	Removed during year.	Tobacco.	Cigarettes.	Over-weight Cigarettes	Tobacco.	Cigarettes.	Over-weight Cigarettes.	
Lbs.	Lbs.	Lbs.	No.	No.	Lbs.	No.	No.	$ cts.
.....	.....	2,260	.....	.....	2,260	.....	.....	113 00
.....	.....	998,742½	3,000	.....	711,652	.....	.....	35,582 61
.....	10,500	.....	10,500	.....	.....	.....	.....	.....
.....	.....	36,602	.....	.....	36,602	.....	.....	1,830 10
.....	.....	19,600	.....	.....	19,600	.....	.....	980 00
980	.....	33,726	.....	.....	33,726	.....	.....	1,686 30
.....	.....	131,182	.....	.....	107,248	.....	.....	5,362 40
980	10,500	1,222,112½	13,500	.....	911,088	.....	.....	45,554 41
18	.....	7,422,475½	29,376,700	71,390	6,713,130½	25,632,000	61,790	397,605 92
.....	.....	24,864	1,010,200	.....	191	718,956	.....	1,735 05
.....	.....	55,350½	.....	.....	52,462½	.....	.....	2,623 13
18	.....	7,502,690	30,386,900	71,390	6,765,784	26,350,956	61,790	401,964 10
.....	.....	3,160	.....	.....	3,160	.....	.....	158 00
.....	.....	30,685	.....	.....	29,195	.....	.....	1,459 75
.....	.....	.....	1,506,600	.....	.....	460,250	.....	1,104 60
1,006	.....	50,046	.....	.....	50,046	.....	.....	2,502 30
21,415	.....	213,154	.....	.....	203,286	.....	.....	10,164 30
22,421	.....	263,200	.....	.....	253,332	.....	.....	12,666 60
23,419	10,500	9,021,847½	31,907,000	71,390	7,962,559	26,811,206	61,790	462,907 46

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—TOBACCO. UNDER

No. 16.—WAREHOUSE RETURN for the

Divisions.	Removed to other Divisions.				Exported.	
	Tobacco.		Cigarettes.			
	Warehoused in Divisions to which removed.	In transit.	Warehoused in Divisions to which removed.	In transit.	Tobacco.	Cigarettes
	Lbs.	Lbs.	No.	No.	Lbs.	No.
Belleville, Ont.						
Hamilton "					908½	3,000
Ottawa "						
Owen Sound "						
Perth "						
Stratford "						
Toronto "						
Totals					908½	3,000
Montreal Que.	354,510	14,820	10,500	500	4,824½	6,000
Quebec "						
Sherbrooke					30	
Totals	354,510	14,820	10,500	500	4,854½	6,000
St. John, N.B.						
Halifax, N.S.						
Winnipeg, Man.						
Vancouver, B.C.						
Victoria "	9,868					
Totals	9,868					
Grand Totals	364,378	14,820	10,500	500	5,763	9,000

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

AMENDED RATES OF DUTY, JUNE 1, 1908.

Fiscal Year ended March 31, 1912—*Concluded.* CR.

Free and Written off		Taken for Re-working.	Remaining in Warehouse.			Totals.		
Tobacco.	Cigarettes	Tobacco.	Tobacco.	Cigarettes.	Overweight Cigarettes.	Tobacco.	Cigarettes.	Over-weight cigarettes.
Lbs.	No.	Lbs.	Lbs.	No.	No.	Lbs.	No.	No.
...	...	...	...	...	...	2,260	...	...
1,500	...	100	284,582	...	...	998,742½	3,000	...
...	10,500	...	...	...	...	...	10,500	...
...	...	...	...	...	...	36,602	...	...
...	...	...	...	...	...	19,600	...	...
...	...	...	...	...	...	33,726	...	...
...	...	...	23,934	...	...	131,182	...	...
1,500	10,500	100	308,516	...	...	1,222,112½	13,500	...
...	...	3,310½	331,880	3,727,700	9,600	7,422,475½	29,376,700	71,390
...	...	2,200	22.473	291,244	...	24,864	1,010,200	...
70	...	2,788	...	...	...	55,350½	...	...
70	...	8,298½	354,353	4,018,944	9,600	7,502,690	30,386,900	71,390
...	...	...	...	...	...	3,160	...	...
...	...	...	1,490	...	...	30,685	...	...
...	...	...	...	1,046,350	...	...	1.506,600	...
...	...	...	...	...	...	50,046	...	...
...	...	...	...	...	...	213,154	...	...
...	...	...	...	...	...	263,200	...	...
1,570	10,500	8,398½	664,359	5,065,294	9,600	9,021,847½	31,907,000	71,390

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—TOBACCO. UNDER

DR. No. 17.—COMPARATIVE STATENENT of Warehouse Returns

PROVINCES.	REMAINING IN WAREHOUSE FROM LAST YEAR.			WAREHOUSED.		
	Tobacco.	Cigarettes	Overweight Cigarettes.	Tobacco.	Cigarettes.	Overweight Cigarettes.
1911.	Lbs.	No.	No.	Lbs.	No.	No.
Ontario	294,642	.....	.....	762,194½	.....	.....
Quebec	893,707	1,681,400	.....	6,447,294½	18,868,600	2,850
New Brunswick	1,020	.....	.....	.....	.....	.....
Nova Scotia	530	.....	.....	.....	.....	.....
Prince Edward Island	1,425	.....	.....	.....	.....	.....
Manitoba	.....	.....	.....	.....	.....	.....
British Columbia	5,488	.....	.....	.....	.....	.....
Totals	1,196,812	1,681,400	.....	7,209,489	18,868,600	2,850
1912.						
Ontario	327,419	.....	.....	802,505½	3,000	.....
Quebec	533,759	3,776,550	.....	6,963,473	26,610,350	71,390
New Brunswick	.....	.....	.....	.....	.....	.....
Nova Scotia	1,450	.....	.....	.....	.....	.....
Manitoba	.....	.....	.....	.....	1,506,600	.....
British Columbia	5,444	.....	.....	.....	.....	.....
Totals	868,072	3,776,550	.....	7,765,978½	28,119,950	71,390

AMENDED RATES OF DUTY, JUNE 1, 1908.

for the Fiscal Years ended March 31, 1911 and 1912. CR.

Received from other Divisions.			Totals.		
Tobacco.		Cigarettes.	Tobacco.	Cigarettes.	Overweight Cigarettes.
Removed during year.	In Transit last year.	Removed during year.			
Lbs.	Lbs.	No.	Lbs.	No.	No.
99,606	2,183	...	1,158,625½	...	...
8,920	...	...	7,349,921½	20,550,000	2,850
4,036	...	...	5,056	...	...
26,433	1,490	...	28,453	...	...
...	...	...	1,425	...	...
11,348	...	...	11,348	...	...
248,500	24,428	...	278,416	...	...
398,843	28,101	...	8,833,245	20,550,000	2,850
91,208	980	10,500	1,222,112½	13,500	...
5,440	18	...	7,502,690	30,386,900	71,390
3,160	...	...	3,160	...	...
29,235	...	...	30,685	...	...
...	...	...	...	1,506,600	...
235,335	22,421	...	263,200	...	...
364,378	23,419	10,500	9,021,847½	31,907,000	71,390

APPENDIX A.—*Continued.*—TOBACCO. UNDER

DR. No. 17.—COMPARATIVE STATEMENT

Provinces.	Entered for Consumption.				Removed to other Divisions.			
					Tobacco.		Cigarettes.	
	Tobacco at 5c. per lb.	Cigarettes at $2.40 per M.	Overweight Cigarettes, at $7 per M.	Duty.	Warehoused in Divisions to which removed.	In Transit.	Warehoused in Divisions to which removed.	In Transit.
1911.	Lbs.	No.	No.	$ cts.	Lbs.	Lbs.	Lbs.	Lbs.
Ontario	829,908	.....	.....	41,495 41	.....	.....	.....	.....
Quebec	6,378,160	16,730,200		359,060 54	374,187	23,419	.....	.....
New Brunswick	5,056	.....		252 80	.....	.....	.....	.....
Nova Scotia	27,003	.....	.....	1,350 15	.....	.....	.....	.....
Prince Edward Island	1,425	.....		71 25	.....	.....	.....	.....
Manitoba	11,348	.....	.....	567 40	.....	.....	.....	.....
British Columbia	247,986	.....	.....	12,399 30	24,656	.....	.....	.....
Totals	7,500,886	16,730,200	.....	415,196 85	298,843	23,419	.....	.....
1912.								
Ontario	911,088	.....		45,554 41	.....	.....	.....	.....
Quebec	6,765,784	26,350,956	61,790	401,964 10	354,510	14,820	10,500	500
New Brunswick	3,160	.....	.....	158 00	.....	.....	.....	.....
Nova Scotia	29,195	.....		1,459 75	.....	.....	.....	.....
Manitoba	.....	460,250	.....	1,104 60	.....	.....	.....	.....
British Columbia	253,332	.....	.....	12,666 60	9,868	.....	.....	.....
Totals	7 962,559	26,811,206	61,790	462,907 46	364,378	14,820	10,500	500

Total duty collected ex-manufactory and ex-warehouse including Canada Twist, Raw Leaf, and other materials.....
License fees.....

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

AMENDED RATES OF DUTY, JUNE 1, 1908.

of Warehouse Returns, &c.—*Concluded.* CR.

Exported.		Ships' Stores.			Free and written off.		Taken for re-working	Remaining in Warehouse.			Totals.		
Tobacco	Cigarettes.	Tobacco.	Cigarettes.	Overweight Cigarettes.	Tobacco.	Cigarettes.	Tobacco.	Tobacco.	Cigarettes.	Overweight Cigarettes.	Tobacco.	Cigarettes.	Overweight Cigarettes.
Lbs.	No.	Lbs.	No.	No.	Lbs.	No.	Lbs.	Lbs.	No.	No.	Lbs.	No.	No.
1,298½	..	....	.....	.....	.....	.....	....	327,419	.....	.....	1,158,625½	.....	...
35,760½	4,000	....	39,250	2,850	.....	.....	4,636	533,759	3,776,550	....	7,349,921½	20,550,000	2,850
.....	...	....	.....	.....	.....	.....	.....	.....	.....	.....	5,056	.....	...
.....	.....	....	.....	.....	.....	.....	.....	1,450	.....	.....	28,453	.....	.....
.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	1,425	.....	.....
.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	11,348	.....	.....
.....	...	330	.....	.....	.....	.....	.....	5,444	.....	.....	278,416	.....	.....
37,059	4,000	330	39,250	2,850	.....	.....	4,636	868,072	3,776,550	.....	8,833,245	20,550,000	2,850
908½	3,000	....	.....	.....	1,500	10,500	100	308,516	.....	.....	1,222,112½	13,500	.....
4,854½	6,000	....	.....	.....	70	.....	8,298½	354,353	4,018,944	9,600	7,502,690	30,386,900	71,390
.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	3,160	.....	.....
.....	.....	....	.....	.....	.....	.....	.....	1,490	.....	.....	30,685	.....	.....
.....	.....	....	.....	.....	.....	.....	.....	.....	1,046,350	....	.....	1,506,600	.....
.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	263,200	.....	.....
5,763	9,000	...	.....	.....	1,570	10,500	8,398½	664,359	5,065,294	9,600	9,021,847½	31,907,000	71,390

1911.	1912.
$6,780,932 90	$8,127,546 00
3,207 00	3,230 00
$6,784,139 90	$8,130,776 00

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—RAW LEAF TOBACCO, INCLUDING STEMS,

DR. No. 18.—WAREHOUSE RETURN for the

Remaining in Warehouse from last year.	Imported.	Warehoused ex-Factory.	Received from other Divisions. Removed during year.	Received from other Divisions. In Transit last year.	Totals.	Divisions.
Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	
2,430	8,677	985	.....	.....	12,092	... Belleville Ont.
21,618	89,187	3,656	1,117	788	116,366	... Brantford "
7,834	31,704	791	543	.....	40,872	... Guelph "
1,483,243	1,730,737½	319,904	562½	153	3,534,600	.. Hamilton "
53,653	49,395	9,261	1,159	.....	113,468	... Kingston "
192,949	827,253½	41,944	6,988½	518	1,069,653	... London "
88	5,722	.....	.....	.....	5,810	... Ottawa "
4,617	7,563	.....	1,155	.....	13,335	... Owen Sound "
1,313	4,214¾	520	2,997	.....	9,044¾	... Perth "
776	2,159	.....	.....	.....	2,935	... Peterborough "
3,618	3,816	.....	.....	.....	7,434	... Port Arthur "
1,905	3,108	.....	823	.....	5,836	... Prescott "
8,262	12,182	.....	.....	.....	20,444	... St. Catharines "
12,085	20,763	.....	339	.....	33,187	... Stratford "
330,150	515,394	66,338	2,963	.....	914,845	... Toronto "
16,640	15,147	.....	.....	.....	31,787	... Windsor "
2,141,181	3,327,022¾	443,399	18,647	1,459	5,931,708¾	... Totals
7,148	30,739	.....	5,756	319	43,962	... Joliette Que.
8,161,434	12,236,608¾	278,521	24,854½	3,582	20,705,000¼	... Montreal "
132,725	191,051	13,214	1,537	.....	338,527	.. Quebec "
.....	.....	.....	2,150	.....	2,150	... St. Hyacinthe "
144,827	478,285	27,480	1,129	.....	651,721	... Sherbrooke "
1,641	3,397	.....	.....	.....	5,038	... Three Rivers "
8,447,775	12,940,080¾	319,215	35,426½	3,901	21,746,398¼	... Totals
15,091	14,954	.....	.....	65	30,110	... St. John, N.B.
1,982	6,345	.....	317	.....	8,644	... Halifax, N.S.
996	4,629	.....	127	.....	5,752	... Pictou "
2,978	10,974	.....	444	.....	14,396	... Totals
37,098	2,604	.....	.....	.....	39,702	... Charlottetown, P.E.I.
59,662	131,080	17,579	571	94	208,986	... Winnipeg, Man.
4,344	13,209	1,666	.....	.....	19,219	... Moose Jaw, Sask.
13,620	71,893	4,851	97	232	90,693	... Calgary, Alta.
57,711	98,704	11,595	1,223	.....	169,233	... Vancouver, B.C.
20,619	50,862	3,531	.....	.....	75,012	... Victoria, "
78,330	149,566	15,126	1,223	.....	244,245	... Totals
10,800,079	16,661,383½	801,836	56,408½	5,751	28,325,458	... Grand Totals

INLAND REVENUE DEPARTMENT, OTTAWA, June 1, 1912.

SCRAPS AND CUTTINGS.

Fiscal Year ended March 31, 1912. Cr.

Entered for Consumption.		Removed to other Divisions.		Exported.	Destroyed.	Remaining in Warehouse.	Totals.
Quantity.	Duty.	Warehoused in divisions to which removed.	In Transit.				
Std. lbs.	$ cts.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.
9,558	2,676 24	.....	.....	985	.....	1,549	12,092
81,784	22,912 82	.....	.....	3,656	.....	30,926	116,366
31,940	8,960 98	.....	.....	791	.....	8,141	40,872
1,909,393	535,147 06	8,070	.....	241,054	429	1,375,654	3,534,600
56,238	15,988 56	3,865	.....	9,261	.....	44,104	113,468
749,261	227,522 82	3,406	.....	57,878	233	258,875	1,069,653
3,806	1,065 68	394	.....	.....	.....	1,610	5,810
7,068	1,979 04	.....	.....	1,777	.....	4,490	13,335
6,474¾	1,847 79	75	.....	.....	.....	2,495	9,044¾
2,441	683 48	.....	.....	.....	.....	494	2,935
4,641	1,311 94	.....	.....	.....	151	2,642	7,434
3,913	1,095 64	129	.....	.....	.....	1,794	5,836
10,939½	3,084 06	480½	.....	474	.....	8,550	20,444
24,405	6,862 10	.....	.....	1,015	.....	7,767	33,187
577,030	162,429 12	8,823	1,276	68,828	75	258,813	914,845
14,811	4,179 28	897	156	356	.....	15,567	31,787
3,493,703¼	997,746 61	26,139½	1,432	386,075	888	2,023,471	5,931,708¾
24,557½	6,890 18	321	.....	.....	.....	19,083½	43,962
12,877,474½	3,632,359 20	20,941½	457½	352,551	5,836	7,447,739¾	20,705,000¼
238,908	66,957 38	1,060	.....	15,016	.....	83,543	338,527
2,150	602 00	.....	.....	.....	.....	.....	2,150
447,264½	125,352 08	3,311½	.....	27,480	158	173,507	651,721
3,088	864 64	.....	.....	.....	.....	1,950	5,038
13,593,442½	3,833,025 48	25,634	457½	395,047	5,994	7,725,823¼	21,746,398¼
17,339	4,854 92	127	.....	481	.....	12,163	30,110
7,885	2,207 80	.....	.....	.....	.....	759	8,644
4,003	1,120 84	.....	.....	.....	.....	1,749	5,752
11,888	3,328 64	.....	.....	.....	.....	2,508	14,396
4,948	1,385 44	.....	.....	1,600	.....	33,154	39,702
130,413	37,340 10	3,028	.....	19,371	.....	56,174	208,986
14,191	4,040 49	.....	.....	1,666	47	3,315	19,219
65,858	18,457 60	151	.....	4,851	.....	19,833	90,693
106,174	31,521 14	97	428	11,595	.....	50,939	169,233
53,416	15,939 84	1,232	.....	3,956	.....	16,408	75,012
159,590	47,460 98	1,329	428	15,551	.....	67,347	244,245
17,491,372¾	4,947,640 17	56,408½	2,317½	824,642	6,929	9,943,788¼	28,325,458

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—RAW LEAF TOBACCO,

DR. No. 19.—COMPARATIVE STATEMENT of Warehouse Returns

Remaining in Warehouse from last year.	Imported.	Warehoused ex-Factory.	Received from other Divisions.		Totals.	Provinces.
			Removed during the year.	In Transit last year.		
Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	1911.
2,311,033	3,016,946	438,277	17,487¼	1,567	5,785,310¼	....Ontario.....
7,135,061¾	12,848,842	227,603	30,134	109	20,241,749¾	....Quebec.....
17,461	19,996	.....	.....	.....	37,457	....New Brunswick..
5,650	9,890	.....	141	.....	15,681	....Nova Scotia....
31,279	16,210	.....	.....	.....	47,489	... P. E. Island.....
54,491	137,929	14,494	1,523	.....	208,437	....Manitoba.....
3,706	11,319	.....	4,740	.....	19,765	....Saskatchewan.....
6,831	44,363	5,074	1,584	432	58,284	....Alberta.....
69,960	160,973	6,764	1,505	.....	239,202	...British Columbia.....
9,635,472¾	16,266,468	692,212	57,114¼	2,108	26,653,375	..... Totals.....
						1912.
2,141,181	3,327,022¾	443,399	18,647	1,459	5,931,708¾	....Ontario.....
8,447,775	12,940,080¾	319,215	35,426½	3,901	21,746,398¼	....Quebec.....
15,091	14,954	.....	.....	65	30,110	....New Brunswick..
2,978	10,974	.....	444	.....	14,396	....Nova Scotia.....
37,098	2,604	.....	.....	.....	39,702	....Prince Edward Island.
59,662	131,080	17,579	571	94	208,986	....Manitoba.....
4,344	13,209	1,666	.....	.....	19,219	....Saskatchewan.....
13,620	71,893	4,851	97	232	90,693	....Alberta.....
78,330	149,566	15,126	1,223	.....	244,245	....British Columbia.....
10,800,079	16,661,383½	801,836	56,408½	5,751	28,325,458	..... Totals.....

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

INCLUDING STEMS, SCRAPS AND CUTTINGS.

for the Fiscal Years ended March 31, 1911 and 1912. CR.

Entered for Consumption.		Removed in Bond to other Divisions.		Ex-ported.	De-stroyed.	Entered for Manu-facture, Free.	Remain-ing in Ware-house.	Totals.
Quantity.	Duty.	Warehoused in divisions to which removed.	In Transit.					
Std. lbs.	$ cts.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.
3,179,013¼	901,737 97	17,541	2,082	444,823	670	.....	2,141,181	5,785,310¼
11,456,705½	3,229,557 49	32,946¼	3,357	296,983	864	3,119	8,447,775	20,241,749¾
21,385	5,987 80	154	.....	.....	827	.....	15,091	37,457
11,879	3,266 62	578	65	181	.....	.....	2,978	15,681
10,391	2,909 48	.....	.....	.....	.....	.....	37,098	47,489
129,950	37,544 08	3,186	.....	15,618	21	.....	59,662	208,437
14,253	4,059 16	1,074	94	.....	.....	.....	4,344	19,765
38,881	10,897 04	300	.....	5,483	.....	.....	13,620	58,284
150,246	43,777 00	1,335	153	8,671	467	.....	78,330	239,202
15,012,703¾	4,239,736 64	57,114¼	5,751	771,759	2,849	3,119	10,800,079	26,653,375
3,493,703¼	997,746 61	26,139½	1,432	386,075	888	.....	2,023,471	5,931,708¾
13,593,442½	3,833,025 48	25,634	457½	395,047	5,994	.....	7,725,823¼	21,746,398¼
17,339	4,854 92	127	.....	481	.....	.....	12,163	30,110
11,888	3,328 64	.....	.....	.....	.....	.....	2,508	14,396
4,948	1,385 44	.....	.....	1,600	.....	.....	33,154	39,702
130,413	37,340 10	3,028	.....	19,371	.....	.....	56,174	208,986
14,191	4,040 40	.....	.....	1,666	47	.....	3,315	19,219
65,858	18,457 60	151	.....	4,851	.....	.....	19,833	90,693
159,590	47,460 98	1,329	428	15,551	.....	.....	67,347	244,245
17,491,372¾	4,947,640 17	56,408½	2,317½	824,642	6,929	.....	9,943,788¼	28,325,458

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued*—OTHER MATERIALS.

DR. No. 20.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1912. CR.

Remaining in Warehouse from last year.	Warehoused.	Totals.	Division.	Entered for Consumption.		Remaining in Warehouse.	Totals.
				Quantity.	Duty.		
Lbs.	Lbs.	Lbs.		Lbs.	$ cts.	Lbs.	Lbs.
165,994	1,326,306	1,492,300	Montreal, Q.	1,372,144	219,543 04	120,156	1,492,300
165,994	1,326,306	1,492,300	Totals...	1,372,144	219,543 04	120,156	1,492,300

INLAND REVENUE DEPARTMENT,

OTTAWA, June 1, 1912.

W. J. GERALD,

Deputy Minister.

APPENDIX A.—*Continued*—OTHER MATERIALS.

DR. No. 21.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1911 and 1912. CR.

Remaining in Warehouse from last year.	Warehoused.	Totals.	Provinces.	Entered for Consumption.		Remaining in Warehouse.	Totals.
				Quantity.	Duty.		
Lbs.	Lbs.	Lbs.	1911.	Lbs.	$ cts.	Lbs.	Lbs.
164,522	1,124,855	1,289,377	Quebec....	1,123,383	179,741 28	165,994	1,289,377
			1912.				
165,994	1,326,306	1,492,300	Quebec....	1,372,144	219,543 04	120,156	1,492,300

INLAND REVENUE DEPARTMENT,

OTTAWA, June 1, 1912.

W. J. GERALD,

Deputy Minister.

APPENDIX A.—*Continued*—CANADA TWIST TOBACCO.

No. 22.—STATEMENT of Revenue collected from Canada Twist Tobacco for the Fiscal Year ended March 31, 1912.

Divisions.	Licenses.		Canada Twist, at 5 cts. per lb.	Total Duty Collected, including License Fees.
	No.	Fees.		
		$	Lbs.	$ cts.
Ottawa, Ont.	6	12	1,000	62 00
Prescott, "	2	4	260	17 00
Totals	8	16	1,260	79 00
Joliette, Que.	1	2	450	24 50
Montreal, "	31	62	15,388	831 40
Totals	32	64	15,838	855 90
Grand Totals	40	80	17,098	934 90

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued*—CANADA TWIST TOBACCO.

No. 23.—COMPARATIVE STATEMENT for the Fiscal Years ended March 31, 1911 and 1912.

Provinces.	Licenses.		Canada Twist, at 5 cts. per lb.	Total Duty Collected, including License Fees.
	No.	Fees.		
1911.		$	Lbs.	$ cts.
Ontario	7	14	990	63 50
Quebec	34	68	18,191	977 55
Totals	41	82	19,181	1,041 05
1912.				
Ontario	8	16	1,260	79 00
Quebec	32	64	15,838	855 90
Totals	40	80	17,098	934 90

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued* CIGARS.

No. 24.—RETURN of Manufactures for the Fiscal Year ended March 31, 1912.

Divisions.	Licenses.		Total Raw Leaf Tobacco and other materials actually used.	Deficiencies Paying Duty.	Cigars at $3 per Thousand.			Cigars at $2 per Thousand.			Total Duty collected ex-Manufactory, including License Fees.
	No.	Fees.		Cigars.	Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	Warehoused.	
		$ cts.	Lbs.	No.	No.	No.	No.	No.	No.	No.	$ cts.
Belleville, Ont	1	50 00	8,128					428,250	163,500	264,750	377 00
Brantford "	5	250 00	86,050		1,200	1,200		4,649,265	3,179,895	1,469,370	6,613 39
Guelph "	9	450 00	54,625	4,998				2,953,875	1,517,600	1,436,275	3,495 20
Hamilton "	10	500 00	329,171	139	1,800	1,800		15,668,015	3,899,015	11,769,000	8,303 71
Kingston "	2	100 00	59,209					3,095,300	1,467,700	1,627,600	3,035 40
London "	22	1,100 00	762,559	89,016				39,567,185	29,481,025	10,086,160	60,240 08
Ottawa "	1	50 00	11,797					725,640	725,640		1,501 28
Owen Sound "	2	75 00	15,241					730,775	730,775		1,536 55
Perth "	2	100 00	5,557¾					268,550	209,425	59,125	518 85
Peterborough "	1	50 00	2,516					140,725	120,725	20,000	291 45
Port Arthur "	2	100 00	4,173					237,800	131,750	106,050	363 50
Prescott "	2	100 00	9,185					453,000	300,600	152,400	701 20
St. Catharines "	10	500 00	26,661½					1,534,300	1,448,350	85,950	3,396 70
Stratford "	3	150 00	28,232					1,424,160	1,022,685	401,475	2,195 37
Toronto "	19	925 00	498,719		1,950	1,950		25,453,070	18,118,275	7,334,795	37,167 40
Windsor "	8	375 00	20,740	17,278				1,060,575	659,625	400,950	1,728 81
Totals	99	4,875 00	1,922,564¾	111,431	4,950	4,950		98,390,485	63,176,585	35,213,900	131,465 89
Joliette, Que	6	300 00	120,642½	2,450				6,750,950	4,316,820	2,434,130	8,938 54
Montreal "	42	1,975 00	1,986,793	4,497	18,150	18,150		104,000,355	64,681,530	39,318,825	131,401 50
Quebec "	5	250 00	90,049					5,304,680	2,181,045	3,123,635	4,612 09
St. Hyacinthe "	2	100 00	971					54,035	54,035		208 07
Sherbrooke "	6	300 00	183,805½					9,516,605	5,047,685	4,468,920	10,395 37
Three Rivers "	2	100 00	12,540					730,610	501,710	228,900	1,103 42
Totals	63	3,025 00	2,394,801	6,947	18,150	18,150		126,357,235	76,782,825	49,574,410	156,658 99

St. John, N B	3	150 00	62,251					3,750,575	912,050	2,838,525	1,974 10
Halifax, N.S.	2	100 00	13,435					711,955	579,270	132,685	1,258 54
Picton "	2	100 00	4,121					213,250	203,250	10,000	506 50
Totals	4	200 00	17,556					925,205	782,520	142,685	1,765 04
Winnipeg, Man.	14	675 00	140,704		2,904	1,482	1,422	6,988,485	4,405,550	2,582,935	9,490 57
Moosejaw, Sask.	4	200 00	14.698	7,409				709,070	709,070		1,632 94
Calgary, Alberta	10	450 00	60,418½	840				2,960,575	2,943,175	17,400	6,338 03
Vancouver, B.C.	25	1,250 00	110,475	1,841	1,020	1,020		6,103,655	6,024,455	79,200	13,305 67
Victoria, B.C.	13	650 00	49,085					2,694,625	2,694,625		6,039 25
Totals	38	1,900 00	159.560	1,841	1,020	1,020		8,798,280	8,719,080	79,200	19,344 92
Grand totals	235	11,475 00	4,772,552¾	128,468	27,024	25,602	1,422	248,879,910	158,430,855	90,449,055	328,670 48

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued*—CIGARS.

No. 25.—COMPARATIVE STATEMENT of Manufactures for the Fiscal Years ended March 31, 1911 and 1912.

Provinces.	Licenses.		Total Raw Leaf Tobacco and other Materials actually used.	Deficiencies Paying Duty.	Cigars at $3 per Thousand.			Cigars at $2 per Thousand.			Total Duty Collected ex manufactory, including License Fees.
	No.	Fees.		Cigars.	Manufactured.	Paid Duty	Warehoused.	Manufactured.	Paid Duty.	Warehoused	
1911.		$ cts.	Lbs.	No.	No.	No.	No.	No.	No.	No.	$ cts.
Ontario	97	4,850 00	1,718,315¾	7,060	11,628	11,628	.....	90,018,905	43,702,530	46,316,375	92,304 07
Quebec	62	3,000 00	2,111,786¾	2,266	62,670	32,670	30,000	114,310,565	65,684,440	48,626,125	134,471 42
New Brunswick	2	100 00	67,813	.....	.....	.....	.....	4,077,900	673,100	3,404,800	1,446 20
Nova Scotia	4	200 00	14,169	863	.....	.....	.....	749,525	597,775	151,750	1,397 28
Manitoba	13	650 00	142,753	.....	.....	.....	.....	7,387,845	4,624,885	2,762,960	9,899 77
Saskatchewan	5	250 00	13,668	106	.....	.....	.....	708,925	652,950	55,975	1,556 11
Alberta	6	250 00	36,321½	.....	1,020	1,020	.....	1,842,000	1,842,000	.....	3,937 06
British Columbia	36	1,750 00	147,781	.....	2,604	2,604	.....	8,325,345	8,296,995	28,350	18,351 79
Totals	225	11,050 00	4,252,608	10,295	77,922	47,922	30,000	227,421,010	126,074,675	101,346,335	263,363 79
1912.											
Ontario	99	4,875 00	1,922,564¼	111,431	4,950	4,950	.....	98,390,485	63,176,585	35,213,900	131,465 89
Quebec	63	3,025 00	2,394,801	6,947	18,150	18,150	.....	126,357,235	76,782,825	49,574,410	156,658 99
New Brunswick	3	150 00	62,251	.....	.....	.....	.....	3,750,575	912,050	2,838,525	1,974 10
Nova Scotia	4	200 00	17,556	.....	.....	.....	.....	925,205	782,520	142,685	1,765 04
Manitoba	14	675 00	140,704	.....	2,904	1,482	1,422	6,988,485	4,405,550	2,582,935	9,490 57
Saskatchewan	4	200 00	14,698	7,409	.....	.....	.....	709,070	709,070	.....	1,632 94
Alberta	10	450 00	60,418½	840	.....	.....	.....	2,960,575	2,943,175	17,400	6,338 03
British Columbia	38	1,900 00	159,560	1,841	1,020	1,020	.....	8,798,280	8,719,080	79,200	19,344 92
Totals	235	11,475 00	4,772,552¾	128,468	27,024	25,602	1,422	248,879,910	158,430,855	90,449,055	328,670 48

Memo:

Total number of cigars manufactured—
1911 227,498,932
1912 248,906,934

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

No. 26.—WAREHOUSE RETURN

CIGARS

APPENDIX A.—*Continued*—CIGARS.

DR. No. 26.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1912.

Provinces.	Remaining in Warehouse from last year.			Warehoused at $2 per M.	Removed from other divisions.	Totals.		
	Foreign at $6 per M.	At $2 per M.	Canadian at $3 per M		Removed during the year at $2 per M.	Foreign at $6 per M.	At $2 per M.	Canadian at $3 per M.
1910	No.	No.	No.	No.	No.	No.	No.	No.
Belleville Ont		94,850		264,750			359,600	
Brantford "	157,400	1,418,345		1,469,370		157,400	2,887,715	
Guelph "		320,120		1,436,275			1,756,395	
Hamilton "	47,300	1,823,650		11,769,000	1,647,500	47,300	15,240,150	
Kingston "		863,050		1,627,600			2,490,650	
London "		3,024,275		10,086,160			13,110,435	
Ottawa "		107,000			20,000		127,000	
Perth "				59,125			59,125	
Peterborough "		1,500		20,000			21,500	
Port Arthur "		52,475		106,050			158,525	
Prescott "		73,000		152,400			225,400	
St. Catharines "		70,900		85,950			156,850	
Stratford "		111,900		401,475			513,375	
Toronto "		1,973,660		7,334,795	52,500		9,360,955	
Windsor "	42,575	459,450		400,950		42,575	860,400	
Totals	247,275	10,394,175		35,213,900	1,720,000	247,275	47,328,075	
Joliette Que		732,875		2,434,130			3,167,005	
Montreal "	71,900	8,692,755	20,000	39,318,825	441,500	71,900	48,453,080	20,000
Quebec "	10,750	1,624,710		3,123,635		10,750	4,748,345	
Sherbrooke "		1,978,465		4,468,920			6,447,385	
Three Rivers "		77,300		228,900			306,200	
Totals	82,650	13,106,105	20,000	49,574,410	441,500	82,650	63,122,015	20,000

St. John N. B.	.....	1,200,300	.....	2,838,525	.....	.....	4,038,825	.....
Halifax N. S.	.....	67,575	.....	132,685	.....	.....	200,260	.....
Pictou "	.....	.....	.....	10,000	.....	.....	10,000	.....
Totals	.....	67,575	.....	142,685			210,260	.....
Winnipeg Man.	.....	536,860	.....	*2,584,357	.....	.....	3,121,217	.....
Moosejaw Sask.	.....	5,975	.....	.....	.....	.....	5,975	.....
Calgary Alberta	.....	.....	.....	17,400	.....	.....	17,400	.....
Vancouver B. C.	.....	.....	.....	79,200	.....	.....	79,200	.....
Grand Totals	329,925	25,310,990	20,000	*90,450,477	2,161,500	329,925	117,922,967	20,000

* 1,422 cigars at $3 per M,

INLAND REVENUE DEPARTMENT,
OTTAWA, JUNE 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued* CIGARS. CR.

No. 26.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1912.

Divisions	Entered for Consumption.			Removed to other Divisions.			Written off.		Remaining in Warehouse.		Totals.		
	Foreign at $6 per M.	At $2 per M.	Duty.	Warehoused in Divisions to which removed at $2 per M.	In Transit at $2 per M.	Exported at $2 per M.	At $2 per M.	Canadian at $3 per M.	Foreign at $6 per M.	At $2 per M.	Foreign at $6 per M.	At $2 per M.	Canadian at $3 per M.
	No.	No.	$ cts.	No.	No.	No.	No.	No	No.	No.	No.	No.	No.
Belleville Ont.	.....	242,000	484 00	.....	.....	.....	.....	.....	.....	117,600	.....	359,600	.....
Brantford "	50,000	1,669,790	3,639 58	.....	.....	.....	.....	.....	107,400	1,217,925	157,400	2,887,715	.....
Guelph "	.....	1,325,670	2,651 34	.....	.....	.....	.....	.....	.....	430,725	.....	1,756,395	.....
Hamilton "	47,300	14,706,050	29,695 90	.....	.....	10,000	.....	.....	.....	524,100	47,300	15,240,150	.....
Kingston "	.....	1,760,500	3,521 00	.....	.....	.....	.....	.....	.....	730,150	.....	2,490,650	.....
London "	.....	10,203,950	20,407 90	50,000	.....	.....	.....	.....	.....	2,856,485	.....	13,110,435	.....
Ottawa "	.....	52,000	104 00	.....	.....	.....	.....	.....	.....	75,000	.....	127,000	.....
Perth "	.....	56,500	113 00	.....	.....	.....	2,625	.....	.....	.....	.....	59,125	.....
Peterborough "	.....	10,000	20 00	.....	.....	.....	.....	.....	.....	11,500	.....	21,500	.....
Port Arthur "	.....	112,975	225 95	.....	.....	.....	.....	.....	.....	45,550	.....	158,525	.....
Prescott "	.....	172,400	344 80	.....	.....	.....	.....	.....	.....	53,000	.....	225,400	.....
St. Catharines "	.....	122,850	245 70	.....	.....	.....	.....	.....	.....	34,000	.....	156,850	.....
Stratford "	.....	471,675	943 35	.....	.....	.....	.....	.....	.....	41,700	.....	513,375	.....
Toronto "	.....	8,224,205	16,448 41	.....	.....	.....	.....	.....	.....	1,136,750	.....	9,360,955	.....
Windsor "	16,175	514,925	1,126 90	.....	.....	.....	.....	.....	26,400	345,475	42,575	860,400	.....
Totals	113,475	39,645,490	79,971 83	50,000	.....	10,000	2,625	.....	133,800	7,619,960	247,275	47,328,075	.....
Joliette Que.	.....	1,877,540	3,755 08	494,000	25,000	.....	.....	.....	.....	770,465	.....	3,167,005	.....
Montreal "	52,600	38,611,905	77,539 41	1,617,500	50,000	5,000	.....	20,000	19,300	8,168,675	71,900	48,453,080	20,000
Quebec "	10,750	3,340,515	6,745 53	.....	.....	.....	.....	.....	.....	1,407,830	10,750	4,748,345	.....
Sherbrooke "	.....	4,316,530	8,633 06	.....	.....	.....	.....	.....	.....	2,130,855	.....	6,447,385	.....
Three Rivers "	.....	203,100	406 20	.....	.....	.....	.....	.....	.....	103,100	.....	306,200	.....
Totals	63,350	48,349,590	97,079 28	2,111,500	75,000	5,000	.....	20,000	19,300	12,580,925	82,650	63,122,015	20,000

St. John N. B.	.....	3,153,600	6,307 20	.....	.....	.....	.....	.....	.....	885,225	.....	4,038,825	.....
Halifax N. S.	.....	148,310	296 62	.....	.....	.....	.....	.....	.....	51,950	.....	200,260	.....
Pictou "	.....	10,000	20 00	.....	.....	.....	.....	.....	.....	.....	.....	10,000	.....
Totals	.....	158,310	316 62	.....	.....	.....	.....	.....	.....	51,950	.....	210,260	.....
Winnipeg Man.	.....	*2,608,527	5,218 47	.....	.....	.....	.....	.....	.....	512,690	.....	3,121,217	.....
Moosejaw Sask.	.....	5,975	11 95	.....	.....	.....	.....	.....	.....	.....	.....	5,975	.....
Calgary Alta.	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,400	.....	17,400	.....
Vancouver B. C.	.....	35,000	70 00	.....	.....	.....	.....	.....	.....	44,200	.....	79,200	.....
Grand Totals	176,825	*93,956,492	188,975 35	2,161,500	75,000	15,000	2,625	20,000	153,100	21,712,350	329,925	117,922,967	20,000

* 1,422 cigars at $3 per M.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued*—CIGARS.

DR. No. 27.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1911 and 1912.

Provinces.	Remaining in Warehouse from last year.			Warehoused at $2 per M.	Received from other Divisions.		Totals.			Entered for Consumption			
										Quantity.			Duty.
	Foreign at $6 per M.	At $2 per M.	Canadian at $3 per M.		Removed during the year at $2 per M.	Foreign at $6 per M.	Foreign at $6 per M.	At $2 per M.	Canadian at $3 per M.	Foreign at $6 M.	At $2 per M.	Canadian at $3 per M.	
1911.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	$ cts.
Ontario	776,300	9,973,575	70,090	46,316,375	3,775,750	.....	776,300	60,065,700	70,000	529,025	49,661,525	70,009	102,707 20
Quebec	312,940	12,274,165	44,000	a48,656,125	270,000	..	312,940	61,200,290	44,000	230,290	a44,041,435	24,000	89,566 61
New Brunswick	75,050	1,422,200	.....	3,404,800	.....	.....	75,050	4,627,000	.....	55,900	3,426,700	.....	7,188 80
Nova Scotia	90,950	88,475	....	151,750	.....	.....	90,950	240,225	.....	90,950	172,650	.....	891 00
Manitoba	14,090	739,035	.....	2,762,960	.....	.....	14,090	3,521,995	.....	14,090	2,985,135	.....	6,054 81
Saskatchewan	.....	.....	.....	55,975	.....	19,150	19,150	55,975	.....	19,150	50,000	....	214 90
British Columbia	11,500	42,100	.....	28,350	.....	.....	11,500	70,450	.....	11,500	70,450	.....	209 90
Totals	1,280,830	24,359,550	114,000	101,376,335	4,045,750	19,150	1,299,980	129,781,635	114,000	950,905	100,407,895	94,000	206,833 22
1912.													
Ontario	247,275	10,394,175	....	35,243,900	1,720,000	.....	247,275	47,328,075	.....	113,475	39,645,490	....	79,971 83
Quebec	82,650	13,106,105	20,000	49,571,410	141,500	.....	82,650	63,122,015	20,000	63,350	48,349,590	.....	97,079 28
New Brunswick	.....	1,200,300	.....	2,838,525	....	..	..	4,038,825	.....	.....	3,153,600	....	6,307 20
Nova Scotia	.....	67,575	....	142,685	.....	.....	..	210,260	.....	.....	158,310	.....	316 62
Manitoba	.....	536,860	.....	b2,584,357	.....	.....	..	3,121,217	.....	.....	b2,608,527	.....	5,218 47
Saskatchewan	.....	5,975	.....	.....	.....	....	....	5,975	.....	..	5,975	.....	11 95
Alberta	.....	.....	..	17,400	.....	.....	.....	17,400	.....	.....	.....	.....	.....
British Columbia	.....	.....	....	79,200	....	.....	.....	79,200	....	....	35,000	.....	70 00
Totals	329,925	25,310,990	20,000	90,450,477	2,161,500	.....	329,925	117,922,967	20,000	176,825	93,956,492	.....	188,975 35

a 30,000 cigars at $3 per M.
b 1,422 cigars at $3 per M.

APPENDIX A.—*Continued*—CIGARS. CR.

No. 27.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1911 and 1912—*Concluded.*

PROVINCES.	REMOVED TO OTHER DIVISIONS.			Exported at $2 per M.	WRITTEN OFF.		REMAINING IN WAREHOUSE.			TOTALS.		
	Warehoused in Divisions to which removed at $2 per M.	Foreign at $6 per M.	In Transit.		At $2 per M.	Canadian at $3 per M.	Foreign at $6 per M.	At $2 per M.	Canadian at $3 per M.	Foreign at $6 per M.	At $2 per M.	Canadian at $3 per M.
1911.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Ontario				10,000			247,275	10,394,175		776,300	60,065,700	70,000
Quebec	4,045,750			7,000			82,650	13,106,105	20,000	312,940	61,200,290	14,000
New Brunswick		19,150						1,200,300		75,050	4,627,000	
Nova Scotia								67,575		90,950	240,225	
Manitoba								536,860		14,090	3,521,995	
Saskatchewan								5,975		19,150	55,975	
British Columbia										11,500	70,450	
Totals	4,045,750	19,150		17,000			329,925	25,310,990	20,000	1,299,980	129,781,635	114,000
1912.												
Ontario	50,000			10,000	2,625		133,800	7,619,960		247,275	47,328,075	
Quebec	2,111,500		75,000	5,000		20,000	19,300	12,580,925		82,650	63,122,015	20,000
New Brunswick								885,225			4,038,825	
Nova Scotia								51,950			210,260	
Manitoba								512,690			3,121,217	
Saskatchewan											5,975	
Alberta								17,400			17,400	
British Columbia								44,200			79,200	
Totals	2,161,500		75,000	15,000	2,625	20,000	153,100	21,712,350		329,925	117,922,967	20,000

	1911.	1912.
Total duty collected, ex-manufactory and ex-warehouse	$ 459,146 92	$ 506,170 83
License fees	11,050 00	11,475 00
Totals	$ 470,196 92	$ 517,645 83

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued*—INSPECTION OF PETROLEUM.

No. 28.—RETURN of Inspected Petroleum and Naphtha shipped from Refineries, during the Fiscal Year ended March 31, 1912.

Divisions.	Licenses.		Petroleum.	Naphtha.	Totals.
	No.	Fees.			
		$	Gallons.	Gallons.	Gallons.
London, Ont.	2	2	19,913,249 47	4,340,258 61	24,253,508 08
Toronto, "	1	1	851,220 56	1,183,049 61	2,034,270 17
Windsor, "	1	1	121,602 40	54,283 40	175,885 80
Totals	4	4	20,886,072 43	5,577,591 62	26,463,664 05

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX A.—*Continued*—INSPECTION OF PETROLEUM.

No. 29.—COMPARATIVE STATEMENT of Inspected Petroleum and Naphtha shipped from Refineries, during the Fiscal Years ended March 31, 1911 and 1912.

Province.	Licenses.		Petroleum.	Naphtha.	Totals.
	No.	Fees.			
1911.		$	Gallons.	Gallons.	Gallons.
Ontario	4	4	21,017,628 45	6,517,655 41	27,535,283 86
1912.					
Ontario	4	4	20,886,072 43	5,577,591 62	26,463,664 05

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX A.—*Continued.*—MANUFACTURES IN BOND.

No. 30.—RETURN of Manufactures for the

Divisions.	Licenses.		Materials Used.			
	No.	Fees.	Spirits.	Beer, Wine, &c.	Nitric Acid.	Mercury.
		$ cts	Gallons.	Gallons.	Lbs.	Lbs.
Belleville, Ont.	1	50 00	8,374 65	136 00		
Brantford "	1	50 00	8,043 38	109 90*		
Hamilton "	3	150 00	23,379 10	357 90		
Kingston "	2	100 00	10,836 01	122 28		
Ottawa "	1	50 00	2,991 30	20 00		
Perth "	2	100 00				
Toronto "	10	500 00	126,209 94	3,389 12†		
Windsor "	9	450 00	28,209 76	1,123 50 211 80		
Totals	29	1,450 00	208,044 14	109 90* 1,971 48 3,389 12†		
Montreal, Que.	12	575 00	39,652 28	233 80		
Quebec "	1	50 00	14,077 87	203 00		
St. Hyacinthe "	2	100 00	17,322 84	311 93		
Sherbrooke "	1	300 00	34,679 37		170,217	21,155
Totals	16	1,025 00	105,732 36	748 73	170,217	21,155
St. John, N.B.	2	100 00	16,425 31	201 30		
Winnipeg, Man.	3	150 00	46,418 40	77 50		
Vancouver, B.C.	1	50 00	5,773 14	84 20		
Grand Totals	51	2,775 00	382,393 35	109 90* 3,083 21 3,389 12†	170,217	21,155

† Vinegar. * Malt extract.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

Fiscal Year ended March 31, 1912.

Manufactured.		Paid Duty ex-Manufactory.		Warehoused.		Total Duty Collected ex-Manufactory, including License Fees.
Vinegar.	Crude Fulminate.	Vinegar.	Duty.	Vinegar.	Crude Fulminate.	
Gallons.	Lbs.	Gallons.	$ cts.	Gallons.	Lbs.	$ cts.
47,163·62	.....	32,731·98	1,309 26	14,431·64	.....	1,359 26
51,232·04	.....	51,232·04	2,049 33	.....	.....	2,099 33
144,800·06	.....	50,099·11	2,003 94	94,700·95	.....	2,153 94
74,404·96	.....	16,044·27	641 76	58,360·69	.....	741 76
12,365·56	.....	.....	.....	12,365·56	.....	50 00
.....	.....	.....	.....	.....	.....	100 00
752,762·21	.....	121,077·54	4,843 13	631,684·67	.....	5,343 13
146,852·80	.....	146,852·80	5,874 12	.....	.....	6,324 12
1,229,581·25	.....	418,037·74	16,721 54	811,543·51	.....	18,171 54
188,010·56	.....	152,964·48	6,118 57	35,046·08	.....	6,693 57
86,270·02	.....	79,915·04	3,196 49	6,354·98	.....	3,246 49
94,403·85	.....	23,583·29	943 33	70,820·56	.....	1,043 33
.....	24,885	.....	.....	.....	24,885	300 00
368,684·43	24,885	256,462·81	10,258 39	112,221·62	24,885	11,283 39
87,219·58	.....	76,682·35	3,067 34	10,537 23	.....	3,167 34
286,935·72	.....	223,961·50	8,958 47	62,974·22	.....	9,108 47
33,738·09	.....	33,738 09	1,349 52	.....	.....	1,399 52
2,006,159 07	24,885	1,008,882 49	40,355 26	997,276 58	24,885	43,130 26

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—MANUFACTURES IN BOND.

No. 31.—COMPARATIVE STATEMENT of Manufactures for

Provinces.	Licenses.		Materials Used.			
	No.	Fees.	Spirits.	Beer, Wine, &c.	Nitric Acid	Mercury.
1911.		$ cts.	Galls.	Galls.	Lbs.	Lbs.
Ontario	29	1,675 00	300,981·36	*84·20 †1,075·02 1,799·21	577,705	63,232
Quebec	16	1,300 00	104,538·83	†187·49 817·53	171,641	21,675
New Brunswick	2	100 00	10,802·26	181·00	.....	.....
Manitoba	3	150 00	30,779·72	.....	.....	.....
British Columbia	1	50 00	8,495·83	74·90	.....	.....
Totals	51	3,275 00	455,598·00	2,872·64 *84·20 †1,262·51	749,346	84,907
1912.						
Ontario	29	1,450 00	208,044·14	*109·90 †3,389·12 1,971·48	170,217	21,155
Quebec	16	1,025 00	105,732·36	748·73	.....	.....
New Brunswick	2	100 00	16,425·31	201·30	.....	.....
Manitoba	3	150 00	46,418·40	77·50		.....
British Columbia	1	50 00	5,773·14	84·20	.....	.....
Totals	51	2,775 00	382,393·35	*109·90 †3,389·12 3,083·21	170,217	21,155

* Malt Extract.
† Vinegar.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

the Fiscal Years ended March 31, 1911 and 1912.

Manufactured.		Paid Duty ex-Manufactory.		Warehoused.		Total Duty Collected ex-Manufactory, including License Fees.
Vinegar.	Crude Fulminate.	Vinegar.	Duty.	Vinegar.	Crude Fulminate.	
Galls.	Lbs.	Galls.	$ cts.	Galls.	Lbs.	$ cts.
1,136,512·76	82,176	292,628·50	11,705 18	843,884·26	82,176	14,697 61
362,259·45	26,069	256,741·44	10,269 72	105,518·01	26,069	11,569 72
66,173·03	.....	57,574·99	2,302 98	8,598·04	.....	2,402 98
162,945·51	.....	130,455·33	5,218 17	32,490·18	.....	5,368 17
44,014·45	.....	39,179·65	1,571 18	4,834·80	.....	2,293 72
1,771,905·20	108,245	776,579·91	31,067 23	995,325·29	108,245	36,332 20
1,229,581·25	.....	418,037·74	16,721 54	811,543·51	.....	18,171 54
368,684·43	24,885	256,462·81	10,258 39	112,221·62	24,885	11,283 39
87,219 58	.....	76,682·35	3,067 34	10,537·23	.....	3,167 34
286,935·72	.....	223,961·50	8,958 47	62,974·22	.....	9,108 47
33,738·09	.....	33,738·09	1,349 52	.....	.....	1,399 52
2,006,159·07	24,885	1,008,882·49	40,355 26	997,276·58	24,885	43,130 26

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—MANUFACTURES IN BOND.

DR. No. 32.—WAREHOUSE RETURN for the

Remaining in Warehouse from last year.	Warehoused.		Received from other Divisions. Vinegar.		Totals.	
Vinegar.	Vinegar.	Crude Fulminate.	Removed during the year.	In Transit last year.	Vinegar.	Crude Fulminate.
Galls.	Galls.	Lbs.	Galls.	Galls.	Gallons.	Lbs.
10,515·22	14,431·64	.....	.....	.....	24,946·86	.....
.....	.....	.....	6,932·65	.....	6,932·65	.....
48,880·90	94,700·95	.....	.....	.....	143,581·85	.....
17,233·30	58,360·69	.....	.....	.....	75,593·99	.....
9,611·30	12,365·56	.....	.....	.....	21,976·86	.....
186,112·23	631,684·67	.....	.....	.....	817,796·90	.....
272,352·95	811,543·51	.....	6,932·65	.....	1,090,829·11	.....
32,474·51	35,046·08	.....	.....	.....	67,520·59	.....
18,265·80	6,354·98	.....	4,596·80	.....	29,217·58	.....
31,450·51	70,820·56	.....	.....	.....	102,271·07	.....
.....	.....	24,885	.....	.....	.....	24,885
82,190·82	112,221·62	24,885	4,596·80	.....	199,009·24	24,885
6,390·36	10,537·23	.....	.....	.....	16,927·59	.....
30,924·95	62,974·22	.....	17,842·25	3,727·68	112,469·10	.....
4,834·80	.....	.....	.....	.....	4,834·80	.....
396,693·88	997,276·58	24,885	29,371·70	3,727·68	1,424,069·84	24,885

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

Fiscal Year ended March 31, 1912. Cr.

Divisions.	Entered for Consumption.		Removed to other Divisions. Vinegar.	Exported.	Remaining in Warehouse.	Totals.	
	Vinegar.	Duty.	Warehoused in Divisions to which removed.	Crude Fulminate.	Vinegar.	Vinegar.	Crude Fulminate.
	Galls.	$ cts.	Galls.	Lbs.	Galls.	Galls.	Lbs.
Belleville, Ont.	18,034·32	721 36	.....	.....	6,912 54	24,946·86	.....
Brantford "	6,932·65	277 31	.....	.....	.....	6,932·65	.....
Hamilton "	121,421·33	4,856 86	.....	.....	18,641·35	143,581·85	.....
Kingston "	50,482·95	2,019 33	7,529·27	.....	17,581·77	75,593·99	.....
Ottawa "	19,408 38	776 35	.....	.....	2,568·48	21,976·86	.....
Toronto "	655,278·59	26,211 13	14,245·63	.....	148,272·68	817,796·90	.....
... Totals	871,558·22	34,862 34	21,774·90	.....	193,976·82	1,090,829·11	.....
Montreal, Que.	25,006·15	1,000 25	.....	.....	42,514·44	67,520·59	.....
Quebec "	11,145·23	445 81	.....	.....	18,072·35	29,217·58	.....
St. Hyacinthe "	48,878·57	1,955 16	4,596 80	.....	48,795·70	102,271·07	.....
Sherbrooke "	.....	.....	.....	24,885	.....	.....	24,885
....Totals	85,029·95	3,401 22	4,596 80	24,885	109,382·49	199,009·24	24,885
St. John, N.B.	8,778·38	351 14	.....	.....	8,149·21	16,927·59	.....
Winnipeg, Man.	74,386·54	2,975 45	.....	.....	38,082·56	112,469·10	.....
Vancouver, B.C.	.....	.....	.....	.....	4,834·80	4,834·80	.....
....Grand Totals	1,039,753 09	41,590 15	26,371·70	24,885	354,425·88	1,424,069·84	24,885

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.* MANUFACTURES IN BOND.

No. 33.—COMPARATIVE STATEMENT of Warehouse Returns

Remaining in Warehouse from last year.	Warehoused.		Received from other Divisions. Vinegar.		Totals.		Provinces.
Vinegar.	Vinegar.	Crude Fulminate.	Removed during the year.	In Transit last year.	Vinegar.	Crude Fulminate.	
Galls.	Galls.	Lbs.	Galls.	Galls.	Galls.	Lbs.	1911.
260,709·45	843,884·32	82,176	.....	.....	1,104,593·77	82,176	..Ontario ....
113,555·60	105,518·01	26,069	1,125·22	.....	220,198·83	26,069	..Quebec. .....
24,691·69	8,598·04	.....	.....	.....	33,289·73	.....	..New Brunswick..
73,289·63	32,490·18	.....	.....	.....	154,242·38	.....	Manitoba. ...
.....	4,834·80	.....	48,462·57	.....	4,834·80	.....	..British Columbia
472,246·37	995,325·35	108,245	49,587·79	.....	1,517,159·51	108,245	.....Totals. ....
							1912.
272,352·95	811,543·51	.....	6,932·65	.....	1,090,829·11	.....	..Ontario.....
82,190·82	112,221·62	24,885	4,596·80	.....	199,009·24	24,885	..Quebec.....
6,390·36	10,537·23	.....	.....	.....	16,927·59	.....	New Brunswick..
30,924·95	62,974·22	.....	17,842·25	3,727·68	112,469·10	.....	..Manitoba. ..
4,834·80	.....	.....	.....	.....	4,834·80	.....	..British Columbia
396,693·88	997,276·58	24,885	29,371·70	3,727·68	1,424,069·84	24,885	.... Totals ...

INLAND REVENUE DEPARTMENT.
OTTAWA, June 1, 1912.

for the Fiscal Years ended March 31, 1911 and 1912. Cr.

Entered for Consumption.		Removed to other Divisions. Vinegar.		Exported.	Written off.	Remaining in Warehouse.	Totals.	
Vinegar.	Duty.	Warehoused in Divisions to which removed.	In Transit.	Crude Fulminate	Vinegar..	Vinegar.	Vinegar.	Crude Fulminate
Galls.	$ cts.	Galls.	Galls.	Lbs.	Galls.	Galls.	Galls.	Lbs.
786,050·57	31,201·95	48,462·57	3,727·68	82,176	.....	272,352·95	1,104,593·77	82,176
115,451·25	4,618·09	1,125·22	.....	26,069	21,431·54	82,190·82	220,198·83	26,069
26,899·37	1,075·97	.....	.....	.....	.....	6,390·36	33,289·73	.....
115,282·37	4,611·30	.....	.....	.....	8,035·06	30,924·95	154,242·38	.....
.....	.....	.....	.....	.....	.....	4,834·80	4,834·80	.....
1,037,683·56	41,507·31	49,587·79	3,727·68	108,245	29,466·60	396,693·88	1,517,159·51	108,245
871,558·22	34,862·34	21,774·90	.....	.....	.....	193,976·82	1,090,829·11	.....
85,029·95	3,401·22	4,596·80	.....	24,885	.....	109,382·49	199,009·24	24,885
8,778·38	351·14	.....	.....	.....	.....	8,149·21	16,927·59	.....
74,386·54	2,975·45	.....	.....	.....	.....	38,082·56	112,469·10	.....
.....	.....	.....	.....	.....	.....	4,834·80	4,834·80	.....
1,039,753·09	41,590·15	26,371·70	.....	24,885	.....	354,425·88	1,424,069·84	24,885

	1911.	1912.
Total duty collected, ex-manufactory and ex-warehouse ...	$ 74,564 51	$ 81,945 41
Licenses fees.....	3,275 00	2,775 00
Totals	$ 77,839 51	$ 84,720 41

W. J. GERALD,
Deputy Minister.

APPENDIX A.—*Continued.*—ACETIC ACID.

No. 34.—RETURN of Manufactures for the Fiscal Year ended March 31, 1912.

DR. CR.

DIVISION.	LICENSES.		MANUFACTURED.	PAID DUTY EX-MANUFACTORY.		WAREHOUSED.	Total Duty Collected ex-Manufactory including License Fees.
	No.	Fees.	Acetic Acid.	Acetic Acid.	Duty.	Acetic Acid.	
		$ cts.	Galls.	Galls.	$ cts.	Galls.	$ cts.
Montreal, Que.	2	150 00	278,749·02	256,551 67	10,262 06	22,197 35	10,412 06

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX A.—*Continued.*—ACETIC ACID.

No. 35.—COMPARATIVE STATEMENT of Manufactures for the Fiscal Years ended March 31, 1911 and 1912.

DR. CR.

PROVINCES.	LICENSES.		MANUFACTURED.	PAID DUTY EX-WAREHOUSED.		WAREHOUSED.	Total Duty Collected ex-Manufactory including License Fees.
	No.	Fees.	Acetic Acid,	Acetic Acid.	Duty.	Acetic Acid.	
1911.		$ cts.	$ cts.	Galls.	$ cts.	Galls.	$ cts.
Quebec, Que...	2	100 00	253,547 96	233,631 38	9,345 27	19,916 58	9,445 27
1912.							
Quebec, Que.....	2	150 00	278,749 02	256,551 67	10,262 06	22,197 35	10,412 06

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX A.—*Continued.*—ACETIC ACID.

DR. No. 36.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1912. CR.

Remaining in Warehouse from Last Year.	Warehoused.	Total.	Divisions.	Entered for Consumption.		Total.
Acetic Acid.	Acetic Acid.	Acetic Acid.		Acetic Acid.	Duty.	Acetic Acid.
Galls.	Galls.	Galls.		Galls.	$ cts.	Galls.
....	22,197·35	22,197·35	Montreal, Que..	22,197·35	887·89	22,197·35

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX A.—*Continued.*—ACETIC ACID.

No. 37.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1911 and 1912.

DR. CR.

Warehoused.	Totals.	Provinces.	Entered for Consumption		Total.
Acetic Acid.	Acetic Acid.		Acetic Acid.	Duty.	Acetic Acid.
Galls.	Galls.	1911.	Galls.	$ cts.	Galls.
19,916·58	19,916·58	.....Quebec.....	19,916·58	796·67	19,916·58
		1912.			
22,197·35	22,197·35	.....Quebec.....	22,197·35	887·89	22,197·35

	1911.	1912.
Total duty collected ex-manufactory and ex-warehouse.	$ 10,141 94	$ 11,149 95
License fees	100 00	150 00
Totals	$ 10,241 94	$ 11,299 95

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

(A)

METHYLATED SPIRITS.

No. 38.—STATEMENT showing the quantity of Raw Materials on hand on April 1, 1911, and March 31, 1912, and brought in during the year ended March 31, 1912.

DR. CR.

Names of Articles.	Stock on hand April 1, 1911.	Brought in during the year.	Total to be Accounted for.	Used in manufacture of Methylated Spirits.	Sold.	Stock on hand March 31, 1912.	Total Accounted for.
	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.
Alcohol..	8,322·63	161,711·79	170,034·42	168,304·23	.....	1,730·19	170,034·42
Wood Naphtha..	3,753·40	38,640·15	42,393·55	31,843·43	.....	10,550·12	42,393·55

(B)

STATEMENT showing the quantity of Raw Materials used, and Methylated Spirits produced therefrom.

DR. CR.

Alcohol used Statement (A) above.	Wood Naphtha used Statement (A) above.	Methylated Spirits used Statement (C) below.	Total to be Accounted for.	Methylated spirits produced.	Lost in Manufacture.		Total Accounted for.
Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	p. c.	Pr'f galls.
168,304·23	31,843·43	.....	200,147·66	198,734·09	1,413·57	1·41	200,147·66

(C)

STATEMENT showing the quantity of Methylated Spirits on hand on April 1, 1911, and March 31, 1912, also quantity brought in, manufactured, sold and otherwise accounted for during the year ended March 31, 1812.

DR. CR.

Stock on hand April 1, 1911.	Manufactured as per Statement (B) above.	Brought in during the year.	Total to be Accounted for.	Sold.	Used in Methylated Warehouse.	Re-used in manufacture of Methylated Spirits.	Stock on hand March 31, 1912.	Total Accounted for.
Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.
3,053·97	198,734·09	.....	201,788·06	201,582·56	.....	.....	205·50	201,788·06

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD.
Deputy Minister.

APPENDIX B

APPENDIX B.

No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912.

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee	Amounts paid.	Total amounts paid.
	Belleville.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Iler, B.	Salary as Collector for the year	51 96	.....	7 20	2,540 77	
Standish, J. G.	" Special Class Exciseman for the year	39 96	.....	4 32	1,955 65	
Cook, W. J	" Deputy Collector Class "A" for the year	.....	83 65 51 36	3 60	1,536 35	
McCoy, W	" Special Class Exciseman for the year	31 93	.....	4 32	1,563 71	
McFee, A. C	" 1st Class Exciseman for the year	47 16	.....	2 88	1,299 96	
Brown, W. J	" 1st Class Exciseman from April 1 to Nov. 30, 1911, and promoted to Special Class Exciseman from Dec. 1, 1911 to March 31, 1912	.....	67 44	3 36	1,279 20	
Wilson, H. R.	" 1st Class Exciseman for the year	.....	58 68	2 88	1,113 37	
Sprague, F. W.	" 1st " " "	.....	50 34	2 88	954 24	
Lally, J. E.	" 3rd " " "	...	39 96	2 88	757 09	
	Salaries	171 01	351 43	34 32	13,000 34	
	Contingencies	.....	.....	.....	2,771 40	
						15,771 74
	Brantford.					
O'Donahue, M. J	Salary as Collector for the year	39 96	.....	7 20	1,952 77	
Sloan, W.	" Deputy Collector Class "A" for the year	.....	72 47	3 60	1,373 89	
Orr, H. N.	" 1st Class Exciseman for the year	47 16	.....	2 88	1,299 96	
Newsome, L.	" 2nd " " "	.....	55 59	2 88	1,053 99	
Schuler, F. C	" 2nd " " "	.....	50 34	2 88	954 24	
Dowling, D. J	" 3rd " " "	.....	40 17	2 88	761 88	
Fairley, W.	" Deputy Collector Class "B" for the year	.....	30 00	2 88	567 12	
	Salaries	87 12	248 57	25 20	7,963 85	
	Contingencies	.....	.....	.....	699 24	
						8,663 09
	Guelph.					
Powell, J. B.	Salary as Collector for the year	.....	.....	7 20	2,592 73	
Till, T. M	" Deputy Collector Class "A" for the year	36 95	.....	3 60	1,809 38	
Dawson, W.	" Special Class Exciseman for the year	39 96	.....	4 32	1,955 65	
Woodward, G. W.	" " " "	31 93	.....	4 32	1,563 71	

Broadfoot, S.	"	Accountant for the year	32 99		4 32	1,612 69	
Spence, F. H.	"	1st Class Exciseman for the year	26 99		2 88	1,320 13	
Bowman, A.	"	1st " " "	26 99		2 88	1,320 13	
Egener, A.	"	1st " " "	26 99		2 88	1,320 13	
O'Brien, E. C.	"	2nd " " "	23 52		2 88	1,153 56	
Alteman, P. J.	"	1st " " "	47 16		2 88	1,299 96	
Howie, A.	"	3rd " " "	19 93		2 88	977 15	
Coutts, J. J.	"	1st " " "		67 44	2 88	1,279 68	
Hanlon, J. R.	"	2nd Class Exciseman from April 1 to Dec. 31, 1911, and promoted to 1st Class from Jan. 1 to Mar. 31, 1912		55 59	2 88	1,053 99	
Martin, N.	"	1st Class Exciseman for the year		60 60	2 88	1,150 23	
Thomas, F. W.	"	2nd Class Exciseman from April 1 to Dec. 31, 1911, and promoted to 1st Class from Jan. 1 to Mar. 31, 1912		55 59	2 88	1,053 99	
		Salaries	313 41	239 22	52 56	21,463 11	
		Contingencies				1,047 68	
							22,510 79
		Hamilton.					
Miller, W. F.	Salary as	Collector for the year			14 40	2,585 53	
Cameron, D. M.	"	Special Class Exciseman for the year			4 32	1,595 64	
Baby, W. A. D.	"	" " "	39 96		4 32	1,955 65	
O'Brien, J.	"	Deputy Collector Class "A"		92 41	7 20	1,750 32	
Dumbrille, R. W.	"	1st Class Exciseman from April 1 to Nov. 17, 1911, and promoted to Acct. from Nov. 18, 1911 to April 1, 1912	26 99		3 36	1,319 65	
O'Brien, J. F.	"	Special Class Exciseman for the year	31 93		4 32	1,563 71	
Hayhurst, T. H.	"	1st Class Exciseman for the year		67 44	2 88	1,279 68	
Boyd, J. F. S.	"	1st " " "	47 16		2 88	1,299 96	
Amor, W.	"	2nd " " "	23 52		2 88	1,153 56	
Cheseldine, J. H.	"	Special Class Exciseman for the year		*65 28 69 96	4 32	1,260 37	
Lawlor, J. J.	"	1st Class Exciseman for the year		67 44	2 88	1,279 68	
Elliott, W. J.	"	1st " " "		*27 28 58 68	2 88	1,086 09	
Kirkpatrick, H. J.	"	2nd Class from April 1 to Dec. 31, 1911, and promoted to 1st Class from Jan. 1 to March 31, 1912		55 59	2 88	1,053 99	
Beasley, M. C.	"	3rd Class Exciseman for the year		41 70	2 88	790 35	
Ballentine, A., jr.	"	2nd " " "		50 34	2 88	954 24	
Hiscott, J. O.	"	3rd Class from April 1 to Dec. 31, 1911, and promoted to 2nd Class from Jan. 1 to March 31, 1912		42 18	2 88	799 89	
Blackman, C.	"	Messenger for the year		39 96	2 88	757 08	
Mitchell, J. L.	"	2nd Class Exciseman for the year		50 34	2 88	954 24	
Griffin, P. F.	"	3rd " " "		38 70	2 88	733 35	
Henderson, H. G. D.	"	Proby. 3rd Class from April 1 to May 31, 1911, and 3rd Class from June 1, 1911 to March 31, 1912		34 10	2 88	646 32	
		Salaries	169 56	801 40	79 68	24,819 30	
		Contingencies				393 20	
							25,212 50

* Insurance.

APPENDIX B.—No. 1. Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amount paid.
	Kingston.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Dickson, C. T	Salary as Collector from April 1 to Sept. 11, off Oct. 1, 1911	.....	.....	3 60	996 37	
Grimason, T	" Deputy Collector Class "A" from April 1 to Feb. 2, 1912, and Collector from Feb. 3 to March 31, 1912	29 74	.....	4 20	1,456 24	
Hanley, A.	" Accountant from April 1 to Jan. 31, and Deputy Collector Class "A" from Feb. 1 to March 31, 1912	23 10	.....	3 00	1,151 90	
Lyons, E	" 1st Class Exciseman for the year	26 99	.....	2 88	1,320 13	
O'Donnell, J	" 3rd " "	19 93	.....	2 88	977 15	
Fahey, E	" 3rd " "	19 93	.....	2 88	977 15	
Hogan, J	" 3rd " "	.....	47 67	2 88	904 41	
Montgomery, W. H.	" 2nd " "	.....	55 59	2 88	1,053 99	
	Salaries	119 69	103 26	25 20	8,817 34	
	Contingencies	.....	.....	.....	168 86	
						8,986 20
	London.					
Alexander, T.	Salary as Collector for the year	.....	.....	7 20	2,592 73	
Davis, T. G.	" Deputy Collector Class "A" for the year	.....	.....	3 60	1,846 33	
Thrasher, W. A.	" " " " "	.....	*19 38 92 41	3 60	1,734 54	
Rose, J. A	" " " "B" "	.....	64 92	3 60	1,231 44	
Coles, F. H	" Accountant for the year	.....	.....	4 32	1,645 68	
Wilson, D	" " "	26 10	.....	2 88	1,279 03	
Lee, E	" 1st Class Exciseman for the year	26 99	.....	2 88	1,320 13	
Girard, I	" 1st " "	26 99	.....	2 88	1,320 13	
Boyle, P	" 1st " "	39 25	*71 76	2 88	1,236 11	
Foster, H	" 1st " "	47 16	.....	2 88	1,299 96	
Webbe, C. E. A	" 2nd " "	23 52	.....	2 88	1,153 56	
Tracy, J. P	" 2nd " "	23 52	.....	2 88	1,153 56	
Talbot, J	" 3rd " "	.....	49 92	2 88	947 16	
Fleming, C.	" 3rd " from April 1st, 1911 to March 1, 1912, services dispensed with	.....	41 10	2 64	779 55	
Whitehead, J. P	" Deputy Collector Class "B" for the year	.....	37 46	2 88	709 66	
Fiddes, J	" " "	.....	39 96	2 88	757 08	
Pleasance, W.	" 3rd Class Exciseman for the year	.....	43 71	2 88	828 36	
Tytler, J. M	" Stenographer for the year	.....	28 11	.....	534 36	
	Salaries	213 53	188 73	56 64	22,369 37	
	Contingencies	.....	.....	.....	1,367 31	
						23,736 68

	Ottawa.					
Freeland, A.	Salary as Collector for the year	.....	99 96	7 20	1,892 77	
McGuire, T	" Deputy Collector Class "A" for the year	.....	72 47	3 60	1,373 89	
Slattery, R.	" 1st Class Exciseman from April 1, off May 1, 1911. Died April 22, 1912	2 24	.....	0 24	110 02	
Fox, T	" 1st " for the year	26 99	.....	2 88	1,320 01	
Hinchey, E. H.	" Accountant from April 1 to Dec. 1, 1911. Transferred to W. & M. as Inspector	15 29	.....	2 88	748 59	
Laporte, G.	" Deputy Collector Class "B" for the year	18 96	.....	2 88	928 08	
Noonan, J. M	" 3rd Class Exciseman for the year	.....	40 17	2 88	761 88	
Winsor, J. A.	" Deputy Collector Class "B" from April 1 to Dec. 31, 1911—Services dispensed with	.....	7 47	2 16	140 31	
Bennett, J.	" " " for the year	.....	52 44	2 88	994 68	
Ladouceur, A.	" Appointed Deputy Collector Class "B" from Jan. 1 to Mar. 31, 1912	.....	2 49	0 72	46 77	
	Salaries	63 48	275 00	28 32	8,317 00	
	Contingencies	.....	.....	.....	425 19	
						8,742 19
	Owen Sound.					
Graham, W. J.	Salary as Collector for the year	.....	.....	3 60	1,796 40	
Johnson, J. J.	" 1st Class Exciseman for the year	26 99	.....	2 88	1,320 13	
Chisholm, W. N.	" Deputy Collector Class "A" for the year	24 95	.....	3 60	1,221 38	
Blyth, A	" 1st Class Exciseman for the year	.....	67 44	2 88	1,279 68	
Cryderman, C. W.	" Deputy Collector Class "B" for the year	.....	45 00	2 88	852 12	
	Salaries	51 94	112 44	15 84	6,469 71	
	Contingencies	.....	.....	.....	575 82	
						7,045 53
	Perth.					
McLenaghan, N.	Salary as Collector for the year	.....	92 99	7 20	1,759 81	
Mason F.	" Special Class Exciseman for the year	.....	.....	4 32	1,995 61	
Goodman, A. W.	" 1st Class Exciseman "	26 99	.....	2 88	1,267 63	
Noonan, H. T.	" Deputy Collector Class "A" "	.....	*63 36 63 72	3 60	1,144 32	
Clark, T.	" " " " "B" "	.....	45 00	2 88	852 12	
Publow, W. J.	" 3rd Class Exciseman "	.....	40 17	2 88	761 88	
Armstrong, T. E.	" " " "	.....	38 70	2 88	733 35	
Rowan, W. E.	" Deputy Collector Class " "	.....	27 48	2 88	519 60	
Egan, W.	" " " " " "	.....	.....	2 88	447 12	
Baikie, D.	" " " " " "	.....	39 96	3 60	756 36	
George, J.	" " " " " "	.....	15 00	2 88	282 12	
Maurice, E.	" " " " " "	.....	24 96	2 88	472 08	
	Salaries	26 99	451 34	41 76	10,992 00	
	Contingencies	.....	.....	.....	1,967 52	
						12,959 52

*Insurance.

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Peterborough.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Rudkins, W.	Salary as Collector from April 1 to August 31, 1911. Resigned September 1, 1911	.....	27 94	1 50	529 68	
Rouk, T.	" Deputy Collector Class "A" for the year	.....	54 95	3 60	1,041 38	
Bickle, J. W.	" " " " "B" "	15 00	...	2 88	732 12	
McNaughton, J. C.	" " " " "	..	39 96	2 88	757 08	
	Salaries	15 00	122 85	10 86	3,060 26	
	Contingencies	.....	.....	.....	1,547 02	
						4,607 28
	Port Arthur.					
Bridgman, M.W.	Salary as Collector for the year	.....	81 96	3 60	1,554 37	
Smith, B. H.	" Deputy Collector Class "B" from April 1 to December 5, 1911, and Class "A" from December 6, 1911 to March 31, 1912	....	43 15	2 88	817 24	
Barnes, G.	" Deputy Collector Class "B" for the year	.....	32 40	2 88	614 64	
Wink, J. C.	" 3rd Class Exciseman "	.....	39 96	2 88	757 09	
	Salaries	...	197 47	12 24	3,743 34	
	Contingencies	....	.....	.....	773 49	
						4,516 83
	Prescott.					
Melville, T. R.	Salary as Collector for the year	...	109 93	7 20	2,082 83	
Gerald, W. H.	" Special Class Exciseman for the year	39 96	.....	1 32	1,955 65	
White, J. B.	" Deputy Collector Class "A" "		83 65	3 60	1,587 71	
Keeler, G. S.	" 2nd Class Exciseman "	23 52	...	2 88	1,153 56	
Wood, J. A.	" Deputy Collector Class "B" "	..	..	2 88	947 04	
McPherson, E. A.	" 1st Class Exciseman "	....	140 40 144 64 60 60	2 88	965 19	
Byrne, W. P.	" 3rd " " "	.	40 44	2 88	766 63	
Granton, C.	" 3rd " " "	....	39 96	2 88	757 09	
Bissell, C. H.	" Deputy Collector Class "B" "	...	47 43	2 88	899 64	
	Salaries	63 48	567 05	32 40	11,115 31	
	Contingencies	..	...	.....	940 32	
						12,055 66

	St. Catharines.					
Hesson, C. A.	Salary as Collector for the year	31 93	.....	3 60	1,564 43	
Johnston, H. J.	" Deputy Collector Class "A" for the year	....	54 95	2 88	1,012 10	
Milliken, E.	" 2nd Class Exciseman "	....	.....	2 88	1,177 08	
Schram, R. L. H.	" 2nd " " "	41 27	.....	2 88	1,135 81	
Simpson, W. A.	" 1st " " "	....	67 44	2 88	1,279 68	
	Salaries	73 20	122 39	5 12	6,199 10	
	Contingencies		.....	.....	312 16	
						6,511 26
	Stratford.					
Rennie, G.	Salary as Collector for the year	39 96	.....	7 20	1,952 77	
Tobin, T. S.	" Deputy Collector Class "A" for the year	....	*97 92 72 47	3 60	1,275 97	
Hicks, W. H.	" " " " "B" "	19 92	.....	2 88	977 16	
Young, R. E.	" 1st Class Exciseman "	....	*74 16 67 44	2 88	1,205 52	
Jeffrey, A. J.	" Accountant "	....	*101 52 57 47	4 32	986 65	
Dalton, M. J.	" Deputy Collector Class "B" "	....	49 92	3 60	946 44	
Relihan, Jas.	" Appointed Deputy Collector Class "A" from August 5, 1911, to March 31, 1912	....	3 23	2 36	59 97	
	Salaries	59 88	524 13	26 84	7,404 48	
	Contingencies	....	.....	.....	415 78	
						7,820 26
	Toronto.					
Frankland, H. R.	Salary as Collector for the year	....	*113 04 129 96	14 40	2,342 53	
Gerald, C.	" Special Class Exciseman for the year	39 96	.....	4 32	1,955 65	
Boomer, J. B.	" Accountant for the year	32 99	.....	4 32	1,612 69	
Mackenzie, J. H.	" Deputy Collector Class "A" for the year	..	92 41	3 60	1,753 92	
Boyd, S. I.	" " " "B" "	24 96	.....	2 88	1,222 08	
Dick, J. W.	" Special Class Exciseman Died October 9, 1911—Off from Nov. 1, 1911	18 63	.....	2 52	912 16	
Evans, G. T.	" " " for the year	31 93	.....	4 32	1,563 71	
Jamieson, R. C.	" " " "	31 92	.....	4 32	1,563 72	
Shanacy, M.	" Deputy Collector Class "B" "	21 96	.....	2 88	1,075 08	
Elliott, T. H.	" " " " "	....	*41 76 60 00	2 88	1,095 36	
Coleman, C.	" " " " "	21 96	.....	2 88	1,075 08	
Helliwell, H. N.	" 1st Class Exciseman for the year	26 99	.....	2 88	1,320 13	
O'Leary, T. J.	" 1st " " "	26 99	.....	2 88	1,320 13	
Graham, W. T.	" Special Class Exciseman "	27 96	.....	4 32	1,367 65	
Doyle, B. J.	" 1st Class Exciseman from April 1 to May 30, 1911, and special Class Exciseman from June 1, 1911 to March 31, 1912	26 99	.....	3 96	1,319 05	
Cook, W. R.	" 1st Class Exciseman for the year	26 99	.....	2 88	1,320 13	

* Insurance. † Annuity.

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Toronto—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Hurst, L. B.	Salary as Special Class Exciseman for the year	30 96	....	4 32	1,514 65	
Barber, J. S.	" 2nd " " "	23 52	.....	2 88	1,153 56	
Dager, H. J.	" Deputy Collector Class "B" "	.....	49 92	2 88	947 16	
Coulter, A.	" Accountant "	48 96	....	2 88	1,348 09	
Ritchie, H.	" " "	....	67 44	7 20	1,275 36	
Jones, A.	" 3rd Class Exciseman "	19 93	....	2 88	977 15	
Falconer, R. H.	" 1st " " "	....	67 44	2 88	1,279 68	
Graham, A. L.	" Special Class Exciseman "	....	69 96	4 32	1,325 65	
Burns, R. J.	" " " "	....	69 96	4 32	1,325 65	
Gillies, A. L.	" 1st Class Exciseman "	....	67 44	2 88	1,279 68	
Walsh, W. H.	" 1st " " "	....	63 12	2 88	1,197 75	
Oliver, J. T.	" 2nd " " "	....	49 92 50 34	2 88	904 32	
Sykes, W. J.	" 2nd " " "	....	49 19	2 88	932 89	
Dunbar, G. E.	" 1st " " "	....	54 96	2 88	1,042 10	
Shorey, A. B.	" 3rd " " "	....	38 70	2 88	733 35	
Fielding, L. G.	" Stenographer for the year	....	33 03	....	629 40	
Young, J. J.	" 3rd Class Exciseman from April 1 to Dec. 31, 1911, and second class Exciseman from Jan. 1 to March 31, 1912	....	49 92 44 95	2 88	832 20	
Eakins, G. G.	" Probationary Exciseman from April 1, to May 30, 1911, and 3rd class from June 1, 1911 to March 31, 1912	....	34 11	2 88	646 31	
Johnston, E. J. A.	" Protationary Exciseman May 11, and confirmed as 3rd Class from Nov. 11, 1911 to March 31, 1912	....	31 04	2 61	587 14	
Abbott, H. F.	" Probationary Exciseman April 1, and confirmed as 3rd Class from Oct. 1 to Dec. 31, 1911 and promoted to 2nd Class from Jan. 1 to March 31, 1912	....	34 98	1 92	663 09	
Howard, W. W. S.	" Re-appointed 1st Class Exciseman from Feb. 12 to March 31, 1912	2 96	....	0 38	145 21	
MacKay, J. C.	" Probationary 3rd Class Exciseman from March 16 to March 31, 1912	....	1 29	0 24	24 27	
	Salaries	486 56	1,334 88	129 02	43,584 03	
	Contingencies	....	....	.....	4,713 81	
						48,297 84
	Windsor					
McSween, Jas.	Salary as Collector for the year	51 96	....	14 40	2,533 57	

Bouteiller, G. A	"	Special Class Exciseman for the year	39 96		4 32	1,955 65	
Marion, H. R.	"	Deputy Collector Class "A" for the year		92 41	7 20	1,750 32	
Dunlop, C.	"	" " "B" "			3 60	1,396 32	
Brennan, J.	"	Special Class Exciseman for the year	31 93		4 32	1,563 71	
Belleperche, A. J. E.	"	Accountant for the year		82 44	4 32	1,563 24	
Keogh, P. M.	"	Deputy Collector Class "B" for the year	19 92		3 60	976 44	
Thomas, R.	"	1st Class Exciseman for the year	26 99		2 88	1,320 13	
Bayard, G. A.	"	1st " " "	26 99		2 88	1,320 13	
Brain, A. F.	"	1st " " "	47 16		2 88	1,299 96	
Berry, H. L.	"	1st " " "		*74 16 67 44	2 88	1,205 52	
Jubinville, J. P.	"	2nd " " "	19 60		2 40	961 30	
Falconer, J.	"	3rd " " "	19 93		2 88	977 15	
Cahill, J. W.	"	3rd " " "	19 93		2 88	977 15	
Neil, Jas.	"	1st " " "		67 44	2 88	1,279 68	
Bénéteau, S.	"	1st " " "		67 44	2 88	1,279 68	
Adam, A. R.	"	3rd " " "		*84 96 47 67	2 88	819 45	
Love, G. G.	"	2nd " " "		55 59	2 88	1,053 99	
Bergeron, R. J.	"	3rd " " "		42 47	2 88	804 62	
Cummiford, F. D.	"	3rd " " "		*56 16 40 37	2 88	705 52	
Mooney, G. B.	"	2nd " " "		50 34	2 88	954 24	
Morforton, E. R.	"	3rd " " "		34 92	2 88	662 16	
Niven, T. D.	"	Probationary Exciseman from April 1, to Aug. 19, 1911, and 3rd Class from Aug. 20, 1911 to March 31, 1912		33 01	2 88	625 36	
Bezaire, T. M.	"	Probationary Exciseman from Aug. 1, 1911 to Jan. 31, 1912, and 3rd Class Feb. 1, to March 21, 1912		20 82	1 92	393 92	
		Salaries	304 37	917 64	89 28	28,379 21	
		Contingencies				2,379 58	
							30,758 79
		Joliette.					
Labelle, L. V.	Salary as Collector for the year			107 70	3 60	2,043 63	
Gamache, J. N.	"	Deputy Collector Class "B" for the year		*35 04 78 03	3 60	1,444 50	
Snowden, J. W.	"	Special Class Exciseman for the year		84 96	4 32	1,610 65	
Ralston, T.	"	Deputy Collector Class "B" from April 1 to Oct. 1, 1911. Died Sept. 10, 1911.		19 98	1 80	378 18	
Olivier, H.	"	3rd Class Exciseman for the year		46 17	2 88	875 88	
Forest, M.	"	Deputy Collector Class "B" from April 1 to Dec. 31, 1911. Services dispensed with.		9 36	2 70	175 41	
Bourgeois, C.	"	3rd Class Exciseman for the year		41 95	2 88	795 12	
Normandin, G.	"	1st " "		67 44	2 88	1,279 68	
Gariepy, L. N.	"	2nd " "		50 34	2 88	954 24	
Robitaille, J. C.	"	Probationary 3rd Class Exciseman from July 1, 1911, to Feb. 2, 1912		20 06	96	379 04	
Richard, J. B. T.	"	Deputy Collector Class "B" from March 16 to March 31, 1912		53	30	9 92	
		Salaries		561 50	28 80	9,946 25	
		Contingencies				2,683 07	
							12,629 32

* Insurance.

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Montreal.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Caven, W.	Salary as Collector for the year	43 93	.....	14 40	2,141 63	
Bernier, J. A.	" Deputy Collector Class "A" for the year	.....	83 65	7 20	1,584 11	
Hudon, M. L. E.	" " " "	62 34	.....	7 20	1,711 71	
Forest, E. R.	" Accountant " "	30 00	.....	7 20	1,462 80	
Fox, J. D.	" " " "	32 99	.....	4 32	1,612 69	
Lane, T. M.	" " from April 1 to June 30, 1911. Transferred to Quebec	7 49	.....	72	366 79	
Walsh, D. J.	" Special Class Exciseman for the year	37 93	.....	4 32	1,857 71	
Seullion, W. J.	" 1st " "	26 99	.....	2 88	1,320 13	
Chagnon, C. P.	" Deputy Collector Class "B" for the year	.....	60 00	7 20	1,132 80	
Dumouchel, L.	" 2nd Class Exciseman for the year	23 52	.....	2 88	1,153 56	
Courtney, J. J.	" 2nd " "	23 52	.....	2 88	1,153 56	
Dixon, H. G. S.	" 2nd " "	23 52	.....	2 88	1,153 56	
Andrews, A. A.	" 2nd " "	41 27	.....	2 88	1,135 81	
Codd, H. J. S.	" 2nd " "	23 52	.....	2 88	1,153 56	
Renaud, A. H.	" Deputy Collector Class "B" for the year	47 16	.....	2 88	1,299 96	
Desaulniers, J. E. A.	" 1st Class Exciseman for the year	.....	67 44	2 88	1,279 68	
Laurier, J. L.	" 2nd " "	.....	*7 26 58 93	2 88	1,110 89	
Millier, E.	" 3rd " "	19 93	.....	2 88	977 15	
Parneton, G. E.	" 3rd " "	19 93	.....	2 88	977 15	
Costigan, J. J.	" 3rd " "	19 93	.....	2 88	977 15	
Brabant, J. B. G. N.	" 2nd " "	23 52	.....	2 88	1,153 56	
Bélair, A. P.	" 3rd " "	19 93	.....	2 88	977 15	
Ryan, W.	" 3rd " from April 1 to June 1, 1911. Died May 20, 1911	.....	8 32	48	157 86	
Mainville, C. P.	" 3rd " for the year	19 93	.....	2 88	977 15	
Comte, L. A. A. J.	" 2nd " "	37 32	.....	2 88	961 20	
Kearney, D. J.	" Special Class Exciseman for the year	.....	69 96	4 32	1,325 65	
Bousquet, J. O.	" 1st " "	.....	*56 48 67 44	2 88	1,223 20	
Lambert, J. A.	" 2nd " "	.....	58 93	2 88	1,118 15	
Maranda, N. A.	" 3rd " "	.....	49 17	2 88	932 91	
Harwood, J. O. A.	" 1st " "	.....	*7 08 58 68	2 88	1,106 29	
Patterson, C. E. A.	" Deputy Collector Class "B" for the year	.....	47 40	3 60	898 92	
Marin, L. H.	" 3rd Class Exciseman for the year	.....	48 81	2 88	925 77	
McGuire, L. J.	" 1st " "	.....	59 37	2 88	1,126 50	

St. Michel, F. X.	"	Deputy Collector Class "B" for the year	...	24 96	3 60	471 36	
Lamoureux, J. A.	"	2nd Class Exciseman for the year	...	58 93	2 88	1,118 15	
Crevier, J. H.	"	3rd " "	...	46 59	2 88	882 99	
Longtin, H.	"	1st " "	...	63 12	2 88	1,197 75	
Thurber, Geo.	"	3rd " "	...	43 44	2 88	823 63	
Graveline, D. P.	"	3rd " "	...	39 96	2 88	757 09	
Marin, N. H.	"	3rd " from April 1 to Dec. 31, 1911, and 2nd Class from Jan. 1 to Mar. 31, 1912	...	45 96	2 88	871 09	
David, T.	"	1st Class Exciseman for the year	...	63 12	2 88	1,197 75	
O'Donnell, M. J.	"	Messenger for the year	...	39 96	2 88	757 08	
Milot, J. F.	"	1st Class Exciseman for the year	...	58 68	2 88	1,113 37	
Lesperance, J. A.	"	2nd " "	...	50 34	2 88	954 24	
Gervais, J. A.	"	3rd " "	...	*5 52 39 96	2 88	751 57	
Robillard, G. A.	"	3rd " "	...	39 96	2 88	757 09	
Daveluy, J. P.	"	3rd " "	...	49 92	2 88	947 16	
Bousquet, A.	"	Stenographer and typewriter for the year	...	20 56	...	391 91	
		Salaries	584 67	1,499 90	165 36	51,438 94	
		Contingencies	...	...	...	11,202 77	
							62,641 71
		Quebec.					
Arcand, D.	Salary as Collector for the year		...	119 99	7 20	2,272 81	
Cahill, J. H.	"	Deputy Collector Class "A" for the year	...	...	3 60	1,846 33	
Patry, J. H.	"	" " "	...	92 41	3 60	1,753 92	
Gow, J. E.	"	Special Class Exciseman from April 1 to May 30, 1911, and Inspector from June 1, 1911, to March 31, 1912	6 16	...	0 72	301 45	
Coleman, J. J.	"	1st Class Exciseman for the year	26 99	...	2 88	1,320 13	
LaRue, A.	"	Deputy Collector Class "B" for the year	38 40	...	3 60	1,057 92	
Bourget, O.	"	2nd Class Exciseman "	22 17	...	2 88	1,087 41	
Lemoine, J.	"	3rd " "	19 93	...	2 88	977 15	
Beaulieu, J. B.	"	3rd " "	34 93	...	2 88	962 15	
Bergeron, E. L.	"	3rd " from April 1 to Dec. 31, 1911, and 2nd Class Exciseman from Jan. 1 to March 31, 1912	...	39 96	2 88	757 11	
Pelletier, N. G.	"	Deputy Collector Class "B" for the year	...	28 71	3 60	542 62	
Grondin, V.	"	3rd Class Exciseman from April 1 to Aug. 21, 1911. Services dispensed with	...	13 52	1 20	256 21	
Filteau, J. R.	"	3rd " for the year	...	34 78	2 88	659 09	
Timmons, R.	"	Accountant "	...	68 65	4 32	1,301 99	
Murray, D.	"	1st Class Exciseman "	26 99	...	2 88	1,320 13	
Rouleau, C. E.	"	3rd " "	...	41 95	2 88	795 12	
Martineau, O. E. J.	"	2nd " "	...	50 34	2 88	954 24	
Poitras, W.	"	2nd " "	...	50 34	2 88	954 24	
Lane, T. M.	"	Accountant from July 1, 1911, to March 31, 1912. Brought from Montreal	22 50	...	2 16	1,100 34	
		Salaries	198 07	540 65	58 80	20,220 36	
		Contingencies	...	...	...	7,409 84	
							27,630 20

* Insurance.

APPENDIX B. No. 1. Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	St. Hyacinthe.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Benoit, L. V.	Salary as Collector for the year	....	*58 56 99 96	7 20	1,834 21	
Macdonald, A. B.	" Special Class Exciseman for the year	33 96	.....	4 32	1,661 65	
Langelier, F.	" Deputy Collector Class "B" for the year	.....	69 51	3 60	1,318 14	
Bernard, N. J. D.	" 1st Class Exciseman "	....	*137 04 67 44	2 88	1,142 64	
Poirier, J. N.	" Deputy Collector Class "B" "	27 96	.....	2 88	769 08	
Deland, A. N.	" " " "	.....	44 16	3 60	835 56	
Dumaine, J. D.	" 1st Class Exciseman "	....	*54 48 64 65	2 88	1,171 74	
Rouleau, J. C.	" " "	.....	64 65	2 88	1,226 22	
Gauvin, E.	" 2nd " from April 1 to Dec. 31, 1911, and 1st Class Exciseman from Jan. 1 to March 31, 1912	.....	58 93	2 88	1,118 45	
Portelance, P. A.	" Deputy Collector Class "B" from April 1, 1911, to March 1, 1912. Services dispensed with	.....	4 51	1 65	85 47	
Desmarais, H. F.	" Deputy Collector Class "B" from April 1, 1911, to Aug. 1, 1911. Services dispensed with	.....	3 32	1 20	62 12	
Francœur, A.	" Deputy Collector Class "B" for the year	.....	42 05	2 88	796 69	
	Salaries	61 92	769 26	38 85	12,021 67	
	Contingencies	.....	.....	.....	2,547 11	
						14,568 78
	Sherbrooke.					
Simpson, A. F.	Salary as Collector for the year	39 96	.....	7 20	1,952 77	
Quinn, J. D.	" Special Class Exciseman for the year	31 93	.....	4 32	1,563 71	
Chartier, E.	" Deputy Collector Class "A" "	.....	72 47	3 60	1,373 89	
Bowen, F. C.	" 3rd Class Exciseman "	.....	49 92	2 88	947 16	
de Grosbois, C. B.	" 2nd " "	.....	50 34	2 88	954 24	
Rousseau, E. H.	" Deputy Collector Class "B" "	.....	39 96	3 60	756 36	
	Salaries	71 89	212 69	24 48	7,548 13	
	Contingencies	.....	.....	.....	837 30	
						8,385 43

* Insurance.

	Three Rivers.					
Hébert, C. D.	Salary as Collector for the year	31 93		3 60	1,564 43	
Duplessis, C. Z.	" Deputy Collector Class "B" for the year	19 92		3 60	976 44	
Auger, L. H	" 3rd Class Exciseman "		46 17	2 88	875 88	
Dontigny, H.	" Deputy Collector Class "B" "		4 92	1 80	93 24	
	Salaries	51 85	51 09	11 88	3,509 99	
	Contingencies				474 23	
						3,984 22
	St. John, N.B.					
Belyea, T. H	Salary as Collector for the year	39 96		7 20	1,952 77	
Clark, J. A	" Deputy Collector Class "A" for the year	28 73		3 60	1,417 63	
McCloskey, J. R	" Special Class Exciseman "	30 96		4 32	1,514 65	
Fitzpatrick, W. J	" 1st Class Exciseman "	26 99		2 88	1,320 13	
Geldart, O. A	" Special " "	30 96		4 32	1,514 65	
Ferguson, J. C	" 1st Class " "	26 99		2 88	1,326 13	
McGowan, J.	" 1st " "		63 90	2 88	1,146 93	
Dibblee, W.	" Deputy Collector Class "B" from April 1 to July 1, 1911. Died June 25, 1911	0 93		0 72	73 35	
Dwyer, D. T.	" " for the year		9 96	3 60	186 36	
Casey, F. J	" 2nd Class Exciseman "		50 34	2 88	954 24	
Farmer, R. C	" 3rd " "		50 34	2 88	954 24	
	Salaries	185 52	174 54	38 16	12,355 08	
	Contingencies				689 30	
						13,044 38
	Halifax.					
Grant, H. H.	Salary as Collector for the year	43 93		7 20	2,148 83	
King, R. M.	" Deputy Collector Class "A" for the year	32 99		3 60	1,613 41	
James, F. C.	" Accountant for the year	26 99		4 32	1,318 69	
Carroll, D.	" 1st Class Exciseman for the year	26 99		2 88	1,320 13	
Blethen, C. W.	" 1st " " "	26 99		2 88	1,320 13	
Hubley, H. H.	" 1st " " "	26 99		2 88	1,320 13	
Gorman, A. M.	" 1st " " "	26 99		2 88	1,320 13	
Tompkins, P.	" 3rd " " "	19 93		2 88	977 15	
Munro, H. D.	" 3rd " " "	19 93		2 88	977 15	
Waddell, S. J.	" Deputy Collector Class "B" for the year		22 44	3 60	423 96	
	Salaries	251 73	22 44	36 00	12,739 71	
	Contingencies				277 72	
						13,017 43

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Pictou.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Fraser, P.	Salary as Collector for the year	27 96	.....	3 60	1,368 37	
McDonald, A. J.	" Deputy Collector Class "B" for the year	.....	44 99	2 88	852 13	
Carroll, E. P.	" 3rd Class Exciseman for the year		48 81	2 88	925 77	
	Salaries	27 96	93 80	9 36	3,146 27	
	Contingencies	.....	.....	.....	306 82	
						3,453 09
	Charlottetown.					
Nash, S. C.	Salary as Collector from April 1 to May 1, 1911. Superannuated	....	.....	9 30	133 03	
Moore, T.	" Deputy Collector Class "B" from April 1 to April 30, 1911, and Collector from May 1, 1911 to March 31, 1912	.....	.....	3 54	1,271 42	
Weeks, W. A.	" Deputy Collector Class "A" from May 1, 1911 to March 31, 1912	.....	41 25	2 64	781 11	
	Salaries	.....	41 25	6 48	2,185 56	
	Contingencies	.....	.....	.....	177 95	
						2,363 51
	Winnipeg.					
Gosnell, T. S.	Salary as Collector for the year	51 96	.....	7 20	2,540 77	
Code, A.	" Deputy Collector Class "A" for the year	36 95	.....	3 60	1,809 38	
Long, W. H. A.	" Accountant for the year	.....	78 51	4 32	1,488 42	
Hawkins, W. L.	" " from April 1 to Dec. 1, 1911. Died Nov. 12, 1911	17 99	.....	2 88	879 13	
Verner, T. H.	" 1st Class Exciseman for the year	47 16	77 52	2 88	1,222 44	
Lariviere, A. C.	" 1st " " "	47 16	.....	2 88	1,299 96	
Sparling, J. W.	" Deputy Collector Class "B" for the year	.....	54 96	2 88	1,042 08	
Earl, R. W.	" " " "	.....	63 36	2 88	1,202 43	
Hammond, T. W.	" 2nd Class Exciseman for the year	.....	50 34	2 88	954 24	
Morris, T. H.	" 3rd " " "	.....	43 44	2 88	823 63	
Forsyth, D.	" 3rd Class Exciseman from April 1 to Dec. 31, 1911, and 2nd Class Exciseman from Jan. 1 to March 31, 1912	.....	51 21	2 88	970 86	
McNiven, D. J.	" Deputy Collector Class "B" for the year	.....	19 92	2 88	377 16	
Nicholl, E. A.	" 3rd Class Exciseman from April 1 to Dec. 31, 1911, and 2nd Class Exciseman from Jan. 1 to March 31, 1912	.....	36 18	2 88	685 89	

Currie, W. W.	Salary as 3rd Class Exciseman from April 1 to Dec. 31, 1911, and 2nd Class Exciseman from Jan. 1 to March 31, 1912	....	37 44	2 88	709 65	
McArthur, G. H.	" Special Class Exciseman for the year	....	81 18	4 32	1,539 45	
Greig, W. G.	" Probationary 3rd Class from April 1 to May 31, 1911, and 3rd Class Exciseman from June 1 to Dec. 31, 1911, and 2nd Class Exciseman from Jan. 1 to March 31, 1912	....	36 62	2 88	693 81	
Ivey, W. J.	" " " " " "	....	34 10	2 88	646 32	
Barrett, J. P.	" Deputy Collector Class "B" for the year	....	45 00	3 60	851 40	
	Salaries	201 22	709 78	60 48	19,737 02	
	Contingencies	....	.....	.....	4,118 26	
						23,855 28
	Calgary.					
Saucier, X.	Salary as Collector for the year	38 64	.....	3 60	1,892 73	
Fletcher, R. W.	" Deputy Collector Class "A" for the year	....	66 99	3 60	1,270 62	
Withenshaw, E.	" " " "B" "	....	60 00	4 32	1,135 68	
Bruce, G. B.	" 3rd Class Exciseman for the year	....	39 96	2 88	757 09	
Walker, J. H.	" Deputy Collector Class "B" for the year	....	15 00	2 88	282 12	
Wood, C. T.	" " " " "	....	49 92	3 60	946 44	
Fidler, H.	" Probationary 3rd Class Exciseman from April 1 to May 31, 1911, and 3rd Class Exciseman from June 1, 1911 to March 31, 1912	....	34 10	2 88	646 32	
	Salaries	38 64	265 97	25 76	6,931 00	
	Contingencies	....	.....	.....	4,656 61	
						11,587 61
	Vancouver.					
Parkinson, E. B.	Salary as Collector for the year	....	104 99	7 20	1,987 81	
Power, J. F.	" Deputy Collector Class "A" for the year	....	79 93	4 32	1,515 71	
Allen, G. A.	" Special Class Exciseman "	39 96	.....	4 32	1,955 65	
Scanlan, T. J.	" Deputy Collector Class "B" "	....	64 92	3 60	1,231 44	
Wolfenden, W.	" " " " " "	....	45 00	3 60	851 40	
Thorburn, Jas.	" Accountant "	....	*64 93 18 72	4 32	1,211 99	
McCutcheon, H.	" Deputy Collector Class " "	....	34 92	3 60	661 44	
Howell, T.	" " " " "	....	27 48	3 60	518 88	
Deeley, F.	" 1st Class Exciseman "	....	60 60	2 88	1,150 23	
Gray, R. S.	" Deputy Collector Class " "	....	49 92	2 88	947 16	
Morgan, E. J.	" 3rd Class Exciseman from April 1 to December 31, 1911, and 2nd Class Exciseman from January 1 to March 31, 1912	....	42 18	2 88	799 89	
Macdonald, G.	" 3rd Class Exciseman from April 1 to December 31, 1911, and 2nd Class Exciseman from January 1 to March 31, 1912	....	41 22	2 88	780 85	
Keay, W. S.	" Deputy Collector Class "B" for the year	....	60 00	3 60	1,136 40	
Hambly, S. E.	" " " " " "	....	12 48	3 60	233 88	
Chilver, F. W.	" 1st Class Exciseman "	....	*67 44 18 72	2 88	1,260 96	
Gilpin, R. R.	" Deputy Collector Class "B" "	....	12 48	1 80	235 68	
Campbell, A. E.	" " " " " "	....	9 96	3 60	186 36	
Grigor, R. W.	" " " " " "	....	49 92	3 60	946 44	

* Insurance.

APPENDIX B.—No 1.—Details of Excise Expenditures for the Year ended March 31, 1912.—*Continued.*

To whom paid.	Services.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee	Amount paid.	Total amount paid.
	Vancouver—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Simpson, G.	Salary as Probationary Exciseman from June 1 to November 30, 1911, and 3rd Class Exciseman from December 1 to December 31, 1911, and 2nd Class from January 1 to March 31, 1912	...	29 16 4 28	1 92	547 97	
Sutherland, W.	" Probationary Exciseman from June 1 to November 30, 1911, and 3rd Class Exciseman from December 1 to December 31, 1911, and 2nd Class from January 1 to March 31, 1912	...	29 16	1 92	552 25	
	Salaries	39 96	928 41	69 00	18,712 39	
	Contingencies	...	...	...	5,283 20	
						23,995 59
	Victoria.					
Jones, R.	Salary as Collector for the year	39 96	...	7 20	1,952 77	
O'Sullivan, D.	" Deputy Collector Class "A" for the year	50 65	...	3 60	1,395 71	
Ridgman, A. H.	" 1st Class Exciseman "	47 16	...	2 88	1,299 96	
Huggett, A. P.	" 2nd " " "	...	50 34	2 88	954 24	
Shaw, J.	" Deputy Collector Class "B" "	...	32 40	3 60	613 92	
	Salaries	137 77	82 74	20 16	6,216 60	
	Contingencies	...	...	...	2,554 43	
						8,771 03
	Moose Jaw.					
Conklin, W. M.	Salary as Collector for the year	...	85 92	3 60	1,639 44	
Goudie, D. A.	" Deputy Collector Class "B" for the year	...	45 00	3 60	851 40	
Ross, H. E.	" " " " " "	11 88	...	2 88	385 20	
Jameson, S. B.	" " " " " "	11 88	...	2 88	385 20	
Pitman, C.	" " " " " "	...	39 96	3 60	756 36	
	Salaries	23 76	170 88	16 56	4,008 60	
	Contingencies	...	...	...	2,604 31	
						6,612 91
	Yukon.					
Macdonald, J. F.	Salary as Collector for the year	...	50 00	7 20	942 80	
	Contingencies	...	...	...	131 00	
						1,073 80

* Insurance.

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee	Amounts paid.	Total amounts paid.
	DISTRICT INSPECTORS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
	Ontario.					
Dingman, N. J.	Salary for the year	4 33		9 00	2,686 67	
	Contingencies				661 04	
						3,347 71
Stratton, W. C.	Salary for the year			9 00	2,691 00	
	Contingencies				260 21	
						2,951 21
Gow, J. E.	Salary from June 1, 1911 to March 31, 1912	33 30		7 50	1,625 80	
	Contingencies				919 67	
						2,545 47
	Quebec.					
Toupin, J. A.	Salary for the year	54 00		9 00	2,637 00	
	Contingencies				276 82	
						2,913 82
Rinfret, C. I.	Salary from April 1 to Dec. 1, 1911. Died Nov. 8, 1911		89 99	6 00	1,704 01	
	Contingencies				134 90	
						1,838 91
Dumontier, J. A.	Salary from January 15 to March 31, 1912		26 53	1 91	502 46	
	Contingencies				105 54	
						608 00
	New Brunswick.					
Burke, T.	Salary for the year	54 00		9 00	2,637 00	
	Contingencies				393 55	
						3,030 55
	Manitoba.					
Barrett, J. K.	Salary for the year			9 00	2,691 00	
	Contingencies				1,830 15	
						4,521 15
	British Columbia.					
Miller, J. E.	Salary for the year	54 00		9 00	2,637 00	
	Contingencies				1,512 18	
						4,149 18
	Inspector of Tobacco Factories.					
Lawlor, H.	Salary for the year	59 99			2,940 01	
	Contingencies				278 19	
						3,218 20
	Inspector of Bonded Factories.					
Stratton, W. C.	Salary for the year				300 00	
	Contingencies				96 98	
						396 98
	Inspector of Breweries and Malt Houses.					
Barrett, J. K.	Salary for the year				300 00	
	Contingencies				1,040 35	
						1,340 35

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	General Contingencies.	$ cts.	$ cts.
American Bank Note Co.	To pay for stamps and labels supplied	93,000 00	
British American Bank Note Co	To pay for bottling labels supplied	9,898 00	
Pritchard & Andrews Co. Ltd., The	Pads, rollers, daters, stamps and general repairs	177 15	
Gerald, Chs	Travelling expenses	165 25	
Gerald W. H	" "	408 70	
Stratton, W. C	" "	77 78	
Taylor, G. W.	" "	28 60	
Collector of Customs	Duty paid on imported goods	120 61	
Lymans, Ltd.	Liebig condenser, jars, flasks, &c	8 21	
Thornton & Truman	Padlocks, keys and general repairs	52 10	
Carson, Hugh, Ltd	Repairing 2 trunks	5 50	
" "	" " "	3 00	
Negretti & Zambra	Thermometers	310 22	
Canadian Consolidated Rubber Co., Ltd	Tubing and washers	3 59	
Edwards, W. C. & Co., Ltd	1,030 feet of dressed lumber	36 45	
Belair, H. A	Expenses of witnesses in case J. A. Lesperance and R. Siminovitch	6 60	
Thiel Detestive Co	Services in connection with G. Viens' case Montreal.	6 00	
Scales, Mrs. C	Cleaning storerooms, &c., during the year	208 25	
Canadian Express Co	Express charges	51 58	
Dominion Express Co	"	35 20	
Higerty, C	Broker's charge for customs entries	2 00	
Pinhey & Co	" "	1 00	
Canadian Pacific Railway Co	Freight	11 30	
Postmaster of Ottawa	Stamps	24 00	
Mahoney, J	Cartage	9 00	
Himsworth, W	Petty expenses for General Excise contingencies	1 60	
	Total amount of contingencies		104,651 09
	Law Costs.		
Walsh, J. C	Law costs in *re* J. Lecompte *vs* Rex	$10 00	
	" Rex *vs* G. Viens	10 00	
	" " R. Siminovitch et al	60 00	
	" " Max Axelrad	10 00	
	" " O. Lajeunesse	10 00	
	" " Moses Singer	10 00	
	" " R. Siminovitch et al	6 40	
	" " in appeal R. Siminovitch et al	75 00	
			191 40
Grenier, A. W	" " *vs* Eug. Charbonneau	22 60	
	" " E. Bourassa	22 60	
	" " Zelog Segal	10 00	
	" " C. A. Sauriol	37 20	
	" " G. Viens	45 00	
			137 40
Turgeon, Roy & Langlois	" " L. Robitaille		75 00
Webster, B	" " Homer Hardacre		10 00
Garceau, N	Expenses in connection with investigation of the I. R. D officers *re* partisanship in elections of 21st Sept., 1911		205 05
Cannon & Power	Law costs Rex *vs* Jean Chartré		20 00
Chrysler, Bethune and Lamonth	" " L. Robitaille		47 39
	Total amount of law costs		686 24

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Provisional Allowance paid during the year.	$ cts.	$ cts.
Gosnell, T. S. Winnipeg.	To pay Hamond, T. W.	124 92	
	" Morris, T. H.	150 00	
	" Levêque, J. T.	150 00	
	" Barrett, J. P.	150 00	
	" Ivey, W. J.	150 00	
	" Forsyth, D.	124 92	
	" Ashton, H.	150 00	
	" Nicholl, F. A.	150 00	
	" Currie, W.	150 00	
	" Greig, W. G.	150 00	
	" Davis, T. J.	150 00	
	" Sparling, J. W.	124 98	
	" Thurston, G. H.	125 00	
	" Fegan, P. J.	133 47	
	" Johnson, J. D.	137 50	
	" Verner, T. H.	124 98	
	" Earl, R. W.	124 98	
	" Code, A.	99 99	
	" Long, W. H. A.	99 99	
	" McArthur, G. H.	99 99	
	" Larivière, A. C.	99 99	
	" McNiven, J. D.	49 98	
	" Vineberg, D.	28 28	
Saucier, F. X. Calgary.	" Schofield, J. H.	50 00	
	" Gray, W. B.	50 03	
	" Libbey, J. J.	75 00	
	" Walker, J. H.	75 00	
	" Bruce, G. B.	150 00	
	" Dalgetty, Jas.	150 00	
	" Davies, W. E.	150 00	
	" Fidler, H.	150 00	
	" Withenshaw, E.	125 00	
	" Wood, C. T.	125 00	
	" Saucier, H.	100 00	
	" Fletcher, R. W.	100 00	
	" Foucar, H.	50 00	
	" McKenty, J.	50 00	
	" Burton, W. A.	50 00	
	" Walsh, T. J.	50 00	
	" Sobey, R. E.	16 67	
Conklin, W. M. Moose-Jaw.	" Panton, A. M.	75 00	
	" Davis, D. R.	50 00	
	" Ross, H. E.	125 00	
	" Pitman, Chrs.	150 00	
	" Goudie, D. A.	150 00	
	" Lowe, W. C.	150 00	
	" Conklin, W. M.	100 00	
	" Jameson, S. B.	100 00	
	" McGowan, W. J. H.	49 99	
	" Edmunson, R. W.	49 99	
Parkinson, E. B. Vancouver.	" Thorburn, Jas.	124 98	
	" Deeley, Fred.	124 98	
	" Delahay, Wm.	50 04	
	" Bailey, E. R.	50 04	
	" Wolfenden, W.	124 98	
	" Carmichael, D.	150 00	
	" Morgan, E. J.	150 00	
	" Gibson, J. V.	150 00	
	" Macdonald, G.	150 00	
	" Gray, R. S.	125 00	
	" Simpson, G.	150 00	
	" Sutherland, W.	149 99	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Provisional Allowance paid during the year Con.	$ cts.	$ cts.
Parkinson, E. B. Vancouver.	To pay Leishman, A.	41 70	
	" Scanlans, T. J.	124 98	
	" Keay, W. S.	124 98	
	" Chilver, F. W.	124 98	
	" Parkinson, E. B.	99 99	
	" Power, J. F.	99 99	
	" Allen, G. A.	99 99	
	" Howell, T.	75 00	
	" Grigor, R. W.	75 00	
	" Atkins, B. R.	75 00	
Jones, R. Victoria.	" Huggett, A. P.	125 00	
	" Clements, R. S.	150 00	
	" Hall, F. J.	156 00	
	" Shaw, J.	125 00	
	" Johnston, Geo.	150 00	
	" Ridgman, A. H.	125 00	
	" Jones, R.	100 00	
	" O'Sullivan, D.	100 00	
	Total provisional allowance		8,832 27
Laframboise, L.	Technical translation		90 11

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Place of Residence.	Service.	Amounts paid	Total amounts paid.
		Commission to Customs officers.	$ cts.	$ cts.
Allison, J. B.	Napanee, Ont.	From April 1, 1911 to March 31, 1912	57 25	
Raymond, A.	Valleyfield, Que	" " "	446 40	
Kavanagh, A. J.	Gaspé, Que	" " "	43 13	
Blair, Alex.	Chicoutimi, Que.	" " "	346 40	
Marsh, R. J. F.	Fort Francis, Ont.	" " "	146 40	
Jackson, H. B.	Rainy River, Ont.	" " "	346 40	
Ratchford, C. E.	Amherst, N.S.	" " "	15 10	
Porter, N.	Simcoe, Ont.	" " "	346 40	
McMillan, D. N.	Morden, Man.	" " "	246 40	
Gilhuly, R. H.	Selkirk, Man.	" " "	146 40	
Maclennan, F. J.	Cornwall, Ont.	" " "	446 40	
Lownsborough, W.	Lindsay, Ont.	" 1910 to Jan. 31, 1912	252 50	
Macdonald, B. R.	Prince Rupert, B.C.	" Sept. 16, 1910 to Mar. 31, 1911	39 30	
Fraser, R.	Trenton, Ont.	" April 1, 1911 to Jan. 22, 1912	205 30	
Polley, W. H.	Trenton, Ont.	" Jan. 22, 1912 to Mar. 31, 1912	41 10	
Ball, J. A.	Dauphin, Man.	" July 1, 1911 "	147 30	
Nuruh, Tobias.	Rosthern, Sask.	" Nov. 2 " "	148 50	
Lindsay, H. W.	Melville, Sask.	" May 1 " "	247 30	
Brown, G.	Meaford, Ont	Guarantee from Apr. 1, '11 to Mar. 31, '12	3 60	
Daly, J. A.	Cambellford, Ont.	" " "	3 60	
Jackson, H. B.	Rainy River, Ont.	" " "	3 60	
Marsh, R. J. F.	Fort Francis, Ont.	" " "	3 60	
Macpherson, M. J.	Kincardine, Ont.	" " "	3 60	
Porter, N.	Simcoe, Ont	" " "	3 60	
Tyson, A. M.	Wiarton, Ont.	" " "	3 60	
Boyd, A.	Antigonish, N.S.	" " "	3 60	
Clark, A. J.	Campobello, N.B.	" " "	3 60	
Kirk, J. T.	Sussex, N.B.	" " "	3 60	
McDonald, J. F.	New Glasgow, N.S.	" " "	3 60	
McPherson, J.	North Sydney, N.S.	" " "	3 60	
Park, W. A.	New Castle, N.B.	" " "	3 60	
Ratchford, C. E.	Amherst, N.S.	" " "	3 60	
Watt, G.	Chatham, N.B.	" " "	3 60	
Allison, J. B.	Napanee, Ont.	" " "	3 60	
Britton, W. H.	Gananoque, Ont.	" " "	3 60	
Ross, W. T.	Picton, Ont.	" " "	3 60	
Valleau, A. S.	Deseronto, Ont.	" " "	3 60	
MacLennan, F. J.	Cornwall, Ont.	" " "	3 60	
English, J. J.	Maple Creek, Alta.	" " "	3 60	
Gilhuly, R. H.	Selkirk, Man.	" " "	3 60	
Mather, T. J.	Gretna, Man.	" " "	3 60	
White, R.	Cranbrook, B.C.	" " "	3 60	
Brimacombe, M. A.	Vermillion, Alta.	" " "	3 60	
McMillan, D. N.	Morden, Man.	" " "	3 60	
Munro, H. P.	Taber, Alta.	" " "	3 60	
Martel, L.	Thetford Mines, Que	" " "	3 60	
Raymond, A.	Valleyfield, Que.	" " "	3 60	
Beauchesne, P. C.	Paspébiac, Que.	" " "	3 60	
Blair, Alex.	Chicoutimi, Que.	" " "	3 60	
Kavanagh, A. J.	Gaspé, Que.	" " "	3 60	
Polley, W. H.	Trenton, Ont.	" Jan. 22, 1912 "	0 70	
Nuruh, Tobias.	Rosthern, Sask.	" Nov. 2, 1911 "	1 50	
McDonald, B. R.	Prince Rupert, B.C.	" April 1 " "	3 60	
Ball, J. A.	Dauphin, Man.	" July 1 " "	2 70	
Glass, Jas. J.	Lindsay, Ont.	" Feb. 12, 1912 "	0 50	
Nadeau, M.	Clair, N.B.	" April 1, 1911 to Jan. 2, '12	3 00	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31 1912—*Continued.*

To whom paid.	Place of Residence.	Service.	Amounts paid.	Total amounts paid.
		Commission to Customs officers.	$ cts.	$ cts.
Lownsborough, W...	Lindsay, Ont..	Guarantee from Apr. 1, '11 to Jan. 31, '12	3 00	
Veniot, J. P.....	Bathurst, N.B	" " Dec. 11, '11	2 22	
Anderson, J. J.....	Sackville, N.B... ..	" " Jan. 2, '12	3 00	
Lindsay, H. W.	Melville, Sask.....	" May 1, 1911 to Feb. 1, '12	2 70	
Douglass, H....	Banff, Alta..... ...	" Apr. 1, 1911 "	3 00	
		Total amount for Commission.....	... .	3,809 10

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Duty-pay.	$ cts.	$ cts.
Bouteiller, G. A	From April 1, 1911 to March 31, 1912	275 00	
Brain, A. F	" "	200 00	
Brennan, J.	" "	150 00	
Falconer, J. E	" "	150 00	
Adam, A. R	" "	150 00	
Thomas, R	" "	150 00	
Cummiford, F. D.	" "	150 00	
Keog, P. M	" "	150 00	
Bayard, G. A	" "	150 00	
Niven, T. D	" "	105 60	
Mooney, G. B	" "	150 00	
Bergeron, R. J	" "	150 00	
Cahill, J. W	" "	150 00	
Gerald, Chrs	" "	275 00	
Jamieson, R. C	" "	275 00	
Hurst, L. R. B	" "	200 00	
Doyle, B. J	" "	150 00	
O'Leary, T. J	" "	150 00	
Walsh, W. H	" "	146 52	
Eakins, G. G	" "	150 00	
Abbott, H. F	" "	150 00	
Young, J. J	" "	131 18	
Jones, A	" "	150 00	
Shory, A. B	" "	150 00	
Dawson, W	" "	275 00	
Martin, N	" "	175 00	
Woodward, G. W	" "	150 00	
Thomas, F. W	" "	150 00	
Egener, A	" "	150 00	
Howie, Alex	" "	150 00	
Baby, W. A. D	" "	225 00	
O'Brien, J, F	" "	187 50	
Boyd, J. F	" "	150 00	
Elliott, W. J	" "	150 00	
Standish, J. G	" "	275 00	
Brown, W. J	" "	200 00	
McFee, A. C	" "	150 00	
Wilson, H R	" "	159 00	
Lally, J. E	" "	150 00	
Sprague, F. W	" "	150 00	
Snowden, J. W	" "	275 00	
Normandin, G	" "	179 16	
Olivier, H	" "	150 00	
Denis, J. L	" "	150 00	
Gariépy, L. N	" "	118 60	
Gerald, W. H	" "	275 00	
McPherson, E. A	" "	200 00	
Keeler, G. S	" "	150 00	
Byrnes, W. P	" "	150 00	
Bissell, C. H	" "	150 00	
Murray, D	" "	265 96	
Lane, T. M	" "	110 48	
Bouchard, Jos	" "	150 00	
Bergeron, E. L	" "	150 00	
Coté, A. R	" "	121 91	
Walsh, D. J	" "	275 00	
Milot, J. F	" "	150 00	
Davidson, Jas	" "	150 00	
Bernard, N. J. D.	" "	179 93	
McArthur, G. H	" "	200 00	
Verner, T. H	" "	100 00	
Allen, G. A	" "	275 00	
Chilver, F. W	" "	200 00	
Gray, R. S	" "	150 00	
Sutherland, W	" "	111 42	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Duty-pay—Concluded.	$ cts.	$ cts.
Desaulniers, J. E. A.	From April 1, 1911 to March 31, 1912	200 00	
Amor, W.	" "	200 00	
Coleman, J. J	" "	200 00	
Berry, H. L	" "	200 00	
Monforton, E.	" "	100 00	
Johnson, J. J	" "	100 00	
Corriveau, O.	"	100 00	
Poitras, W.	" "	87 50	
Quinn, J. D.	" "	150 00	
Morris, T. H.	" "	100 00	
Davis, T. J	" "	100 00	
Fairley, W.	" "	100 00	
Gauvin, E	" "	100 00	
Graham, W. T.	From April 1 to Oct. 16, 1911	81 45	
Coulter, A.	13 days	5 36	
Ralston, I. (Estate of)	From April 1 to July 29, 1911	49 19	
Gow, J. E	" " to May 31, 1911	41 66	
Filteau, J. R.	" " to June 20, 1911	17 77	
Martineau, E. J.	" May 12 to June 11, 1911	15 56	
Macdonald, A. B.	" April 1 to April 9 and from May 16 to March 31, 1912	205 27	
Dumaine, J. D.	" April 1 to Dec. 6, 1911	102 42	
Chaput, N. J.	" " 11 to May 15, 1911 and from Jan. 22 to Mar. 31, 1912	29 21	
Gervais, J. A.	" April 20 to April 29, 1911	2 78	
Mason, F.	" " 1 to Sept. 30, 1911 and from Dec. 11, 1911 to Mar. 31, 1912	131 99	
Goodman, A. W	" April 1 to May 29 and from June 12 to Dec. 15, 1911 and from Feb. 9 to Mar, 31, 1912	121 81	
Millier, E	" April 1 to Sept. 10, and from Sept. 25, 1911 to Mar. 31, 1912	144 17	
Comte, L. A. A. J	" Aug. 14 to Sept. 3 and from Sept 11 to Sept. 30, 1911	11 50	
Hicks, W. H	" June 27 to July 8 and from 21 to Aug. 30, 1911.	11 90	
Young, R. E.	" April 1 to June 26 and from July 9 to Aug. 20, 1911 and from Aug. 31 1911 to Mar. 31, 1912	188 10	
Dick, J. W	" April 1 to Oct. 8, 1911	104 30	
Bourquet, J. O	" " to Aug. 13, 1911 and from Sept. 4, 1911 to Mar. 31, 1912	94 33	
Marin, L. H.	" April 1 to July 9 and from July 31, 1911 to Mar. 31, 1912	94 35	
Panneton, G. E	" July 10 to July 30, 1911	5 65	
Helliwell, H. N.	" Oct. 16, 1911 to Mar. 31, 1912	45 96	
Tellier, J. O	" Jan. 3 to Mar. 31, 1912	24 46	
Oliver, J. T.	" Jan. 4 " "	24 19	
Granton, C.	" Feb. 6 " "	15 23	
Evans, G. T.	" Oct. 1, 1911 to Mar. 31, 1912	95 70	
	Total duty-pay		14,635 07
	Total		649,375 86
	ADD—Printing	10,112 88	
	Stationery	2,051 88	12,164 76
	Grand total		661,540 62
	ADD—Balances due by Inspectors 1912	343 98	
	" to " 1911	49 08	393 06
			661,933 68
	LESS—Balances due by Inspectors 1911	1,273 30	
	" to " 1912	343 98	1,617 28
	Actual disbursement, agreeing with Statement No. 4, page 12		660,316 40

INLAND REVENUE DEPARTMENT,
OTTAWA June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX B.—No. 2.—Distribution of Seizures for the Year ended March 31, 1912.

Divisions.	To whom paid.	Service.	Amounts paid.	Total amounts paid.
			$ cts.	$ cts.
Hamilton	Miller, W. F.	For his share of seizure No. 48	36 00	
		" " " 49	5 00	
				41 00
	Beasley, M. C	" " " 48		36 00
	Miller, W. F	To pay informer ½ penalty on seizure No. 49		5 00
Ottawa	Flynn, J.	For his share of seizure " 230		200 00
St. Catharines	Hesson, C. A.	To pay informer ½ penalty on seizure " 33		25 00
	Flynn, J. J.	For his share of seizure " 33		11 75
	Hesson, C. A	" " " 33		11 75
Toronto	Elliott, T. H.	" " " 427		50 00
Montreal	Caven, W.	To pay informer ½ penalty on seizure " 1211	100 00	
		" " " " 1222	12 50	
		" " " " 1223	100 00	
		" " " " 1224	12 50	
		" " " " 1225	5 00	
		" " " " 1227	10 00	
		" " " " 1230	75 00	
		" " " " 1232	5 00	
		" " " " 1233	12 50	
		" " " " 1234	12 50	
				345 00
	Lespérance, J. A.	For his share of seizure " 1211		46 20
	Brabant, G. N.	" " " 1212	68 00	
		" " " 1213	6 20	
		" " " 1214	7 00	
		" " " 1215	10 00	
		" " " 1216	97 25	
		" " " 1217	44 04	
		" " " 1218	121 50	
		" " " 1219	13 10	
		" " " 1220	34 62	
		" " " 1221	6 35	
		" " " 1222	8 90	
		" " " 1223	198 50	
		" " " 1224	8 48	
		" " " 1225	7 80	
		" " " 1227	10 00	
				641 74
	Comte, J. A.	" " " 1214	7 00	
		" " " 1222	8 90	
				15 90
	Panneton, G. E.	" " " 1215		10 00
	Costigan, J. J.	" " " 1219	13 10	
		" " " 1220	34 62	
	McGuire, L. J.	" " " 1204		47 72
	Daveluy, J.	" " " 1224		50
Quebec	Bourget, O.	" " " 612	5 00	8 47
		" " " 617	6 25	
				11 25
	Trudel, E.	" " " 612		5 00
Sherbrooke	Brown, T. C.	" " " 215		25 00
	Simpson, A. F.	To pay informer ½ penalty on seizure " 215		25 00
St. John	Belyea, T. H.	To pay informer ½ penalty on seizure No. 178	5 00	
		" " " 179	12 50	
		" " " 180	12 50	
		" " " 181	17 50	
		" " " 182	25 00	
		" " " 183	25 00	
		" " " 184	25 00	
		" " " 185	25 00	
				147 50

APPENDIX B.—No. 2.—Distribution of Seizures—*Concluded.*

Divisions.	To whom paid.	Service.	Amounts paid.	Total Amounts paid.
			$ cts.	$ cts.
St. John	Kelly, J. T.	For his share of seizure No. 172	10 00	
		" " 173	21 25	
		" " 174	22 50	
		" " 175	6 50	
		" " 176	1 50	
		" " 177	1 00	
		" " 178	3 00	
		" " 179	9 50	
		" " 180	8 35	
		" " 181	14 35	
		" " 182	21 00	
				118 95
Vancouver	Parkinson, E. B.	To pay informer ½ penalty on seizure No. 57	25 00	
		" " " 58	25 00	
		" " " 59	25 00	
				75 00
		Total		1,903 73

RECAPITULATION.

Ontario	$ 380 50
Quebec	1,181 78
New Brunswick	266 45
British Columbia	75 00
	$1,903 73

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX B.—*Continued.*

No. 3.—Details of Sundry Minor Expenditures for the Year ended March 31, 1912.

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Proprietory or Patent Medicine Act.	$ cts.	$ cts.
Rudolf, Prof. R.	For consultation as expert	200 00	
Blakader, Dr. A. D.	" "	200 00	
	Printing	421 31	
	Stationery	12 32	
			833 63
Danebrog, The	Advertising tenders for ferry between St. Thomas d'Alfred and Fassett, 70 lines, 1 ins., $7; and ferry between Rockcliffe and Gatineau Point, 62 lines, 3 ins., $12.40	19 40	
Spectateur, Le	Advertising tenders for ferry between St. Thomas d'Alfred and Fassett, 70 lines, 1 in	7 00	
United Canada, The	Advertising tenders for ferry between Rockcliffe and Gatineau Point, 62 lines, 3 ins	18 60	
Ottawa Free Press	Advertising tenders for ferry between St. Thomas d'Alfred and Fassett, 70 lines, 2 ins	17 50	
Evening Citizen	Advertising tenders for ferry between Rockcliffe and Gatineau Point, 62 lines, 9 ins	55 80	
American Bank Note Co	Stamps supplied	21 75	
	Printing	14 81	
			154 86
	To pay the following officers in *re* special compensation for loss of wearing apparels, etc., at the fire of the Food Laboratory :—		
McGill, A		3 00	
Lemoine, A		20 25	
Davidson, Miss E		1 25	
Valin, J. A. G		23 00	
Wright, Miss S. E		79 50	
Ladouceur, Jos		8 00	
Forward, C. C		2 00	
Forster, E. L. C		8 50	
Kitto, W. V		5 50	
Rickey, J. A		46 90	
Bélisle, E		26 50	
Hagan, Jas. (Estate of)		41 60	
Popham, F. H		7 50	
			273 50
	Export of Electric Power.		
Lambe, A. B	Travelling expenses	242 30	
Higman, O	" "	138 22	
			380 52
	Grand total agreeing with statement No. 10, page 18.		1,642 51

Inland Revenue Department,
Ottawa, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX B.—*Continued*,

No. 4,—DETAILS of Adulteration of Food Expenditures for the Year ended March 31, 1912.

To whom paid.	Service.	Deduction for Superannuation.	Guarantee.	Amounts paid.	Total Amounts paid.
	Adulteration of Food.	$ cts	$ cts	$ cts	$ cts.
Hogan, Jas., Kingston, Ont.	Salary as Food Inspector for the year	.....	1 08	198 92	
Talbot, J., London, Ont.	Salary as Food Inspector for the year	.....	1 08	198 92	
Hinchey, E. H., Ottawa and Hull	Salary as Food Inspector for 8 months	.....	0 72	132 56	
Kidd, T., Seaforth, Ont.	Salary as Food Inspector for 3 months	.....	0 27	124 71	
Dager, H. J., Toronto, Ont.	Salary as Food Inspector for the year	.....	1 08	198 92	
Costigan. J. J., Montreal, Que.	Salary as Food Inspector for the year	7 00	1 08	341 92	
Beland, F. X., Quebec	Salary as Food Inspector for the year	.....	1 08	298 92	
Rouleau, J. C., St. Hyacinthe, Que.	Salary as Food Inspector for the year	.....	1 08	198 92	
Ferguson, J. C., St. John, N.B.	Salary as Food Inspector for the year	4 00	1 08	194 92	
Waugh, R. J., Halifax, N.S.	Salary as Food Inspector for the year	.....	1 08	348 92	
Week, W. A., Charlottetown, P.E.I	Salary as Food Inspector for 11 months	.....	0 99	182 35	
Moore, T., Charlottetown, P.E.I	Salary as Food Inspector for 1 month	.....	0 09	16 57	
Larivière, A. C., Winnipeg, Man.	Salary as Food Inspector for the year	.....	1 08	198 92	
Fletcher, R. W., Calgary, Alta.	Salary as Food Inspector for the year	.....	1 08	198 92	
Power, J. F., Vancouver, B.C	Salary as Food Inspector for the year	.....	1 08	198 92	
O'Sullivan, D., Victoria, B.C.	Salary as Food Inspector for the year	.....	1 08	198 92	
Parker, T., Nelson, B.C.	Salary as Food Inspector for the year	.....	1 08	198 92	
		11 00	16 11	.....	3,431 15

APPENDIX B.—*Continued.*

No. 4.—DETAILS of Adulteration of Food Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	ADULTERATION OF FOOD.	$ cts.	$ cts.
	Contingencies.		
McGill, A., for the Ottawa Laboratory	Travelling expenses	284 65	
	Special assistance	118 65	
	Rent	519 50	
	Sundries for laboratory	3,876 04	
Hogan, James	Travelling expenses and purchases of samples, &c	82 00	
Talbot, J.	" "	140 57	
Rickey, J. A.	" "	233 86	
Kidd, T.	" "	109 57	
Dager, H. J.	" "	165 80	
Costigan, J. J.	" "	196 19	
Béland, F. X.	" "	265 61	
Rouleau, J. C	" "	330 89	
Ferguson, J. C.	" "	282 05	
Waugh, R. J.	" "	208 10	
Week, W. A.	" "	72 71	
Moore, T.	" "	38 39	
Larivière, A. C,	" "	143 49	
Fletcher, R. W.	" "	232 79	
Power, J. F	" "	111 50	
O'Sullivan, D.	" "	94 80	
Parker, T.	" "	109 50	
			7,616 66
Valade, Dr. F. X.	Allowance under Act for retaining fees	200 00	
	" rent	100 00	
	" material used in analyses	100 00	
			400 00
Fagan, Dr. C. J.	" retaining fees	200 00	
	" rent	100 00	
	" material used in analyses	100 00	
			400 00
Bowman, M.	Allowance under Act for retaining fees	200 00	
	" materials used in analyses	100 00	
			300 00
Donald, Dr. J. T.	" retaining fees	200 00	
	" rent	100 00	
	" material used in analyses	100 00	
	" analysing samples	16 00	
	Retaining fees as member of Food Standards of laboratory	200 00	
			616 00
Ellis, Dr. W. H	" " "		200 00
Kemp, R. A.	General repairs fixing up the laboratory, &c.		1,234 72
McKinley & Northwood.	Material furnished, plumbing, &c., at laboratory		1,042 15
Lymans, Ltd	Supplies and apparatus for laboratory		834 88
Canadian Buffalo Forge Co., Ltd	For installation of tank and motor as per contract		620 00
Topley Co., The	1 Balopticon and stand and 1 adjustable Rheostat for laboratory		404 25
Ellacoth, J. A. R.	Electrical fixtures, &c.		227 77
Mills, A. K., & Son	Tile tables, slate tops, &c.		175 90
Starr, J.	Paint work at laboratory		365 25
Thermos Bottle Co.	Apparatus for laboratory		135 14
McFarland Douglass Co., Ltd	Material and labour installing an electric fan at laboratory		138 10
Gooderham & Worts, Ltd	Alcohol and express charges		53 94
Collector of Customs	Duty on imported goods		51 27
Norton Co.	Apparatus for laboratory		39 90
Baldwin, B. H.	Installing motor, &c., in laboratory		102 10
Barrett M'f'g. Co.	Chemicals		2 73

APPENDIX B.—*Continued.*

No. 4.—Details of Adulteration of Food Expenditures for the Year ended March 31, 1912—*Concluded.*

To whom paid.	Service.	Amounts paid.	Total Amounts paid.
	Adulteration of Food.	$ cts.	$ cts.
	Contingencies.		
Gnenier, A. W.	Law Costs, Rex *vs.* The A. Leblanc Co., Ltd.		10 00
Pritchard & Andrews, Ltd., The	1 model dater		2 20
International Inst. Co.	1 electric drying oven and 4 doz. of tubes		82 31
Macdonald, A. B.	Supplies for laboratory		62 16
Thornton & Truman	Keys and general repairs		70 90
McGrath, E. P.	24 boxes		24 00
Scientific Materials Co.	1 electric drying oven		40 15
Canadian Express Co.	Express charges		1 95
Mahoney, J	Cartage		16 75
Postmaster of Ottawa	Stamps supplied		28 00
Higgerty, Chas.	Brokers' fees for passing customs' entries		3 00
Himsworth, W	Sundries for laboratory		1 47
Laframbeise, L.	Special translation		48 80
			18,783 60
	Add—Printing	2,631 86	
	Stationery	453 93	
			3,085 79
	Total adulteration of food expenditure		21,869 39
	Less balance due by Inspector Kidd, April 1, 1911, and paid during the year 1911-12		50 00
	Grand total agreeing with statement No. 6, page 15		21,819 39

Inland Revenue Department,
Ottawa, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX B.—*Continued.*

No. 5.—DETAILS of Departmental Expenditures for the Year ended March 31, 1912

Names.		Rank. Division.	Rank. Sub Division.	Period.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Insurance.	Amounts paid.	Total amounts paid.
					$ cts.	$ cts.	$ cts.	$ cts.	$ cts
Templeman, Hon. W.	Minister			From April 1 to October 9, 1911				3,669 35	
Nantel, Hon. W. B.	"			From October 10, 1911 to March 31, 1912				3,330 65	
Gerald, W. J.	Dep. Minister			For the year				5,000 00	
Himsworth, W.	Secretary	1	A	"				3,750 00	
Campeau, F. R. E.	Chief Account	1	A	"				2,900 00	
Valin, J. E.	Ass.-Account	1	B	"				2,500 00	
Shaw, J. F	Chief Statistical Clerk	1	B	"				2,500 00	
Doyon, J. A.	Clerk	1	B	"	50 00			2,450 00	
Westman, Thos.	"	1	B	"	44 00			2,156 00	
Quain, R.	"	2	A	"	61 13		61 92	1,914 45	
Taylor, Geo. W.	Ass.-Secretary	1	B	"	42 00			2,058 00	
Fowler, George.	Clerk	2	A	"				2,037 50	
Brodeur, P. E. S.	"	2	A	"		82 50		1,567 50	
Newby, F.	"	2	B	From April 1 to September 30, 1911				799 98	
Hughes, P. A.	"	2	A	For the year	56 00		55 92	1,488 08	
McCullough, A.	"	2	A	"	32 00			1,568 00	
Halliday, W. A.	"	2	B	"	56 00			1,544 00	
Roy, L. G.	"	2	B	"	56 00			1,544 00	
"	Private Secretary	2	B	From October 10 to November 14, 1911				58 82	
Ostiguy, L. R.	Clerk	2	B	For the year		77 50		1,472 50	
Nicholas, B. C.	"	2	B	From April 1 to November 30, 1911		53 28		1,013 36	
"	Private Secretary			From April 1 to October 9, 1911				262 09	
Chateauvert, G. E.	Clerk	2	B	For the year		76 88		1,460 62	
Gervais, J. H.	"	2	B	"		75 63		1,436 87	
Laflamme, J. L. K.	"	2	B	From November 15, 1911 to March 31, 1912		39 67		753 66	
"	Private Secretary			"				226 67	
Lawless, E. M.	Clerk	3	A	For the year		60 00		1,140 00	
Hagerty, Bertha	"	3	A	"		60 00		1,140 00	
Charbonneau, E	"	3	A	From April 1 to September 30, 1911		30 00		570 00	
Doyle, E. F.	"	3	A	For the year		60 00		1,140 00	
Watson, V. M.	"	3	A	"		60 00		1,140 00	
Goodhue, M. L. E. B.	"	3	A	"		60 00		1,140 00	
Trumpour, G.	"	3	A	"		60 00		1,140 00	
Furlong, C. J.	"	3	A	"		56 88		1,080 62	
Beard, M. H.	"	3	A	"		56 88		1,080 62	
"	Asst. Private Secretary	3	A	From April 1 to October 9, 1911				52 42	

APPENDIX B.—*Continued.*

No. 5.—DETAILS of Departmental Expenditures for the Year ended March 31, 1912—*Continued.*

Names.		Rank. Division.	Rank. Sub-Division.	Period.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Insurance.	Amounts paid.	Total Amounts paid.
					$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Griffith, M. L.	Clerk	3	A	For the year		55 63		1,056 87	
Yeats, R. P.	"	3	A	"	33 25		45 40	871 35	
Lewis, Hugh B.	"	3	A	"		49 38		938 12	
Teevens, L. P.	"	3	A	"		47 50		902 50	
Allen, A. T.	"	3	A	"		47 50		902 50	
Lyon, Anna V.	"	3	A	"		49 38		938 12	
Robert, Arthur	"	3	A	"		45 00		855 00	
Cantin, J. W. Z.	"	3	A	"		45 00		855 00	
Bourgeois, E.	Messenger			"		40 00		760 00	
Roy, Lorenzo	"			"		38 75		736 25	
McGill, A.	Chief Analyst	1	A	"	64 00			3,136 00	
Lemoine, A.	Analyst	2	A	"		80 00		1,520 00	
Valin, J. A. G.	"	2	A	"		80 00		1,520 00	
Forster, E. L. C.	"	2	A	"		80 00		1,520 00	
Forward, C. C.	"	2	A	"		80 00		1,520 00	
Kitto, Wm. V.	"	2	B	"		62 50		1,187 50	
Bélisle, Emile	Clerk	3	A	From April 1, '11 to January 8, 1912 and January 15, 1912 to March 31, 1912		60 00	32 12	1,088 53	
Rickey, J. A.	"	3	A	For the year		60 00	75 36	1,064 64	
Davidson, Edith	"	3	A	From April 1, 1911 to July 15, 1911		16 53		314 22	
Wright, S. E.	"	3	A	For the year		58 75		1,116 25	
Ladouceur, J.	"	3	A	"		56 25	75 12	993 63	
Leckie, Thos. L.	Messenger			From August 7, 1911 to March 31, 1912		16 26		309 00	
Armstrong, W.	Superintendent of Methylated Spirit Manufacture	2	A	For the year		109 44		1,990 56	
Parent, F.	Clerk	3	A	"		60 00		1,140 00	
Hagan, James	Warehouseman		M	From April 1, 1911 to February 29, 1912		41 25		783 75	
Popham, F. H.	Warehouseman		M	For the year		40 00		760 00	
Higman, O.	Chief Elect. Engin. and Insp. of Gas	1	A	"		150 00		2,850 00	
Evans, C. J.	Clerk	3	A	"		58 75	41 04	1,075 21	
Cole, N. R.	"	3	A	"		53 75		1,021 25	
Mathews, E. D. K.	"	3	A	"		39 22		744 15	
McKell, M. E. E.	"	3	B	"		33 75		641 25	
Fyfe, James	Chief Insp. of Weights and Measures	1	A	"		150 00		2,850 00	
Way, E. O.	Clerk	3	A	"		50 00		950 00	
Barbeau, L.	"	3	B	"		38 75		736 25	
Burgess, T. H.	Carpenter		M	"		45 00		855 00	
				Totals	494 38	2,847 56	386 88	99,588 66	

APPENDIX B.—*Continued.*

No. 5.—Details of Departmental Expenditures for the Year ended March 31, 1912—*Continued.*

Name.	Services.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.
Templeman, Hon. Wm	Minister—travelling expenses	500 00	
Gerald, W. J.	Deputy Minister "	29 25	
Nicholas, B. C.	Private Secretary "	612 50	
Doyon, J. A	Clerk "	12 10	
Nantel, Hon. W. B.	Minister "	400 00	
Laflamme, J. L. K.	Private Secretary "	209 60	
Himsworth, Wm	Secretary "	1 48	
Bernard, W. S. H.	Extra clerk, salary	53 49	
Fontaine, J.	" "	60 89	
Leckie, T. L.	" "	174 70	
Acland, P. P.	" "	105 35	
Chenier, E.	" "	423 54	
Dawson, W. L.	" "	217 75	
Clarke, W. McL.	" "	163 13	
Learoyd, D. R.	" "	220 17	
Sweet, R. P.	" "	166 64	
O'Neil, Jas.	" "	41 66	
Grignon, L. J.	" "	104 82	
Lees, B.	" "	51 72	
Barry, E. P	" "	57 46	
Cloutier, E. J.	" "	41 66	
Davidson, Miss E.	Microscopic work, 41½ days at $1,150 per annum	129 73	
Pittaway Studio	1 large photo framed	9 35	
Thornton & Truman	Repairs to keys, etc.	10 30	
Cr. R. G. for King's Printer	Printing account	1,237 35	
" " "	Parliamentary publications' account	51 25	
Cr. R. G. for cont. of stationery	Stationery account	1,569 75	
G.N.W. Telegraph Co.	Telegrams	73 24	
C. P. R'y " "	"	588 85	
Canadian Express Co.	Express charges	13 15	
Dominion " "	"	24 42	
The Bell Thelephone	Messages	80 95	
Robert, Mrs. R.	Washing towels	72 00	
Maloney, J.	Cartage	19 75	
Sproule, W. H	Repairing clocks	6 00	
Bryson - Graham, Ltd	Towels, etc.	26 99	
Ottawa Electric R'y Co.	Tickets	20 00	
Postmaster	Postage, etc.	25 00	
Labor News	150 copies	10 50	
C. P. R'y Telegraph messengers	Christmas donation	3 75	
G. T. R'y " "	" "	4 25	
Auger, J. B.	" "	1 00	
Laporte, N.	" "	1 00	
The New Era, Chilliwack	Subscription	0 75	
Quebec Daily Telegraph, Quebec.	"	3 00	
Journal Printing Co., Ltd., Ottawa	"	1 80	
The Omineca Herald, Hazelton	"	3 00	
Gas Journal Publishers, Hamilton.	"	2 00	
Farmer's Advocate, London.	"	1 50	
Daily World, Vancouver	"	3 00	
Walter King, London, Eng	"	4 01	
The Portland Canal Miner, Portland	"	5 00	
The Chronicle, Montreal	"	2 00	
Le Courrier de l'Ouest, Edmonton	"	1 00	
Le Progrès de Valleyfield, Valleyfield.	"	3 00	
Le Canada Français, St. Jean	"	1 50	
Le Devoir, Montreal	"	9 65	
Times Printing Co	"	3 00	
Scientific America, New York	"	8 25	

APRENDIX B.—*Continued.*

No. 5.—DETAILS of Departmental Expenditure for the Year ended March 31, 1912—*Continued.*

Names.	Services.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.
The Tobacco World	Subscription	2 00	
L'Avenir du Nord, St. Jerôme	"	1 00	
The Gazette, Montreal	"	18 00	
The American Food Journal	"	1 50	
The Herald, Montreal	"	6 00	
Le Pays, Montreal	"	2 00	
La Revue Franco-Americaine, Montreal	"	4 00	
The United Canada, Ottawa	"	1 50	
The Planet, Chatham	"	4 00	
Journal, Waterloo	"	1 00	
The Winnipeg Telegram, Winnipeg	"	2 00	
The Sentinel Review, Woodstock	"	3 00	
The News, Toronto	"	4 50	
Canadian Mining Journal, Toronto	"	4 00	
The Mail and Empire, Toronto	"	4 00	
The Evening Telegram "	"	3 00	
Les Cloches de St. Boniface, Winnipeg	"	2 00	
Le Manitoba, Winnipeg	"	1 00	
The Standard, St. Catharines	"	3 00	
The St. John Globe, St. John	"	5 00	
La Tribune, St. Hyacinthe	"	1 00	
Moniteur Acadien, Shediac	"	1 00	
La Presse, Montreal	"	7 00	
La Verité, Quebec	"	2 00	
L'Evenement, Quebec	"	3 00	
L'Action Sociale	"	6 00	
The Confederate, Mount Forest	"	6 25	
The Free Press, London	"	3 00	
L'Etoile du Nord, Joliette	"	0 75	
The Herald, Hamilton	"	3 60	
The Evening Mail, Halifax	"	5 00	
Daily Spectator, Hamilton	"	3 00	
The Hearld, Halifax	"	6 05	
The Daily Examiner, Charlottetown	"	2 50	
Le Nationaliste, Montreal	"	2 00	
The Bridgwater Bulletin	"	1 00	
Daily Journal, Edmonton	"	3 00	
The Daily Province	"	3 00	
The Colonist, Montreal	"	15 00	
Toronto Daily Star, Toronto	"	3 00	
The New Freeman, St. John	"	1 00	
L'Evangeline, Moncton	"	1 80	
Journal of Gas Light & Co., London, Eng	"	6 48	
L'avenir de Jonquières, Jonquières	"	1 17	
La Patrie, Montreal	"	14 00	
The Standard of Empire, Toronto	"	4 00	
Le Soleil, Quebec	"	6 00	
Weekly Tribune, Winnipeg	"	2 00	
The Evening Citizen, Ottawa	"	24 00	
Toronto Daily & Sund. World, Toronto	"	8 00	
The Fort Georges Tribune	"	2 00	
Saturday Sunset, Vancouver	"	4 00	
La Nouvelle France	"	2 00	
The Evening Journal, Ottawa	"	14 40	
The Week, Vancouver	"	1 00	
Jones Yarrell & Co., London, Eng	"	17 04	
Pacific Marine Review	"	3 00	
The Express, Woodstock	"	2 75	
Nostrums & Guackery, Chicago	"	1 00	
The Cumberland News, Cumberland	"	3 00	

APPENDIX B—*Continued.*

No. 5.—DETAILS of Departmental Expenditures for the Year ended March 31, 1912—*Concluded.*

Names.	Services.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.
L'Action Montreal	Subscription	4 00	
United Printing House, Montreal	"	6 00	
Guelph Herald, Guelph	"	4 70	
The Interior New, Aldermere	"	3 00	
Canada N. Co. Ltd., Lnndon, Eng.	"	7 00	
Globe Printing Co., Toronto	"	8 00	
The Evening Citizen, Ottawa	"	5 25	
Le Bien Public, Trois-Rivieres	"	1 00	
Bull. des Recherches Historiques, Lévis	"	8 00	
	Total departmental contingencies		7,994 19
	Grand total		107,582 85
	ADD—Balance due March 31, 1912		16 66
			107,599 51
	LESS—Balance due April 31, 1911		16 66
	Actual disbursement agreeing with statement No. 16, page 42		107,582 85

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912,

W. J. GERALD,
Deputy Minister.

APPENDIX B.—*Continued.*

No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1912.

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total Amounts paid.
	Belleville.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Johnson, W.	Salary as Inspector for the year	24 00	.....	3 60	1,172 04	
Slattery, T.	" Asst. Inspector for the year	15 80	.....	1 80	774 00	
Kylie, R.	" " "	.....	.....	1 80	789 80	
Howson, G. H.	" " "	.....	.....	1 80	789 80	
	Salaries	39 80	.....	9 00	3,526 00	
	Contingencies	.....	.....	.....	1,708 91	
						5,234 91
	Hamilton.					
Seeley, J. C.	Salary as Inspector for the year	.....	.....	3 60	1,363 40	
Marentette, A.	" Asst. Inspector from April 1 to Dec. 31, 1911. Died Dec. 5, 1911	14 78	.....	1 35	725 50	
Fitzgerald, E. W.	" Asst. Inspector for the year	.....	.....	1 80	989 82	
Wheatley, A. E.	" " "	.....	.....	1 80	1,098 12	
Laidman, R. H.	" " "	.....	.....	1 80	989 82	
Robins, S. W.	" " "	.....	.....	1 80	939 80	
Clegg, J.	" " "	.....	.....	1 80	839 82	
	Salaries	14 78	.....	13 95	6,945 88	
	Contingencies	.....	.....	.....	1,911 80	
						8,857 68
	Kingston.					
Gallagher, T.	Salary as Inspector for the year	.....	.....	3 60	1,088 00	
Johnston, C. W.	" Asst. Inspector for the year	.....	.....	1 80	989 82	
MacLean, C. E.	" " "	.....	.....	1 80	598 20	
	Salaries	.....	.....	7 20	2,676 02	
	Contingencies	.....	.....	.....	965 00	
						3,641 02
	London.					
Coughlin, D.	Salary as Inspector for the year	.....	.....	1 80	989 82	
Thomas, J. S.	" Asst. Inspector for the year	.....	.....	1 80	989 82	
Hughes, R. A.	" " "	.....	.....	1 80	1,002 33	
Liddle, D.	" " "	.....	.....	1 80	889 86	
Butler, F. H.	" " "	.....	.....	3 60	1,363 06	
	Salaries	.....	.....	10 80	5,234 83	
	Contingencies	.....	.....	.....	2,489 36	
						7,724 19
	Ottawa.					
Macdonald, J. A.	Salary as Inspector from April 1 to Nov. 30, 1911. Resigned Dec. 1, 1911	.....	.....	2 40	964 24	
Breen, J.	" Asst. Inspector for the year	.....	.....	1 80	989 82	
Wisser, J.	" " from Apr. 1 to Dec. 31, 1911. Services dispensed with Jan. 1, 1912	.....	.....	1 35	523 62	

APPENDIX B—*Continued.*

No. 6.—DETAILS of Weights and Measures Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Ottawa—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Findlay, R	Salary as Asst. Inspector for the year			1 80	939 80	
Church, G. C	" " "			1 80	739 86	
Hodgins, H. A	" " "			1 80	698 16	
Hinchey, E. H	" Inspector from Dec. 1, 1911, to Mar. 31, 1912. Brought from Excise Service	9 64		1 20	472 48	
	Salaries	9 64		12 15	5,327 98	
	Contingencies				1,860 69	
						7,188 67
	Toronto.					
McConvey, J. J	Salary as Inspector for the year			3 60	1,496 40	
Milligan, R. J	" Asst. Inspector for the year			1 80	1,098 12	
Wright, R. J	" " "	19 76		1 80	970 06	
Murdoch, J.	" " "			1 80	989 82	
Lyons, A	" " from Apr. 1 to Dec. 31, 1911. Services dispensed with			1 35	665 31	
Cruickshank, J. L.	" Asst. Inspector for the year			1 80	889 86	
Smith, J. C	" " "			1 80	989 82	
	Salaries	19 76		13 95	7,099 39	
	Contingencies				2,083 07	
						9,182 46
	Montreal.					
Archambault, J. E.	Salary as Inspector for the year			3 60	1,763 06	
Daoust, J. A	" Asst. Inspector for the year	19 76		1 80	970 06	
Hébert, J. A	" " "			1 80	989 82	
Boudet, E	" " "			1 80	989 82	
Beaulac, J. H	" " "			1 80	939 80	
Hall, H. C	" " from Apr. 1 to Sept. 1, 1911. Died Aug. 14, 1911			75	386 73	
Galipeau, J. B. N.	" Asst. Inspector for the year			1 80	889 86	
Wilson, J. C	" " "			1 80	889 86	
	Salaries	19 76		15 15	7,819 01	
	Contingencies				4,799 49	
						12,618 50
	Quebec.					
Roy, C. E	Salary as Inspector for the year			3 60	1,579 70	
LeBel, J. A. W.	" Asst. Inspector for the year	38 40		1 80	1,059 72	
Guay, A	" " from April 1, 1911 to Mch. 1912. Services dispensed with			1 65	731 61	
Préfontaine, F. H.	" " Inspector for the year			1 80	939 80	
Knowles, C	" " "			1 80	989 82	
Petit, J. B.	" " from April 1 to Dec. 31, 1911. Superannuated January 1, 1912			1 35	448 65	
Bourget, L. J.	" " Inspector for the year			1 80	989 82	
Bugeaud, J. F.	" " from April 1 to Dec. 1, 1911. Services dispensed with			1 20	298 80	
Caldwell, A. B	" " Inspector for the year			1 80	448 20	
Beauchamp, L. E.	" " " from Mch. 16 to Mch. 31, 1912			15	25 65	
	Salaries	38 40		16 95	7,511 77	
	Contingencies				3,333 63	
						10,845 40

APPENDIX B—*Continued.*

No. 6.—DETAILS of Weights and Measures Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee	Amounts paid.	Total amounts paid.
	St. Hyacinthe.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Morin, J. P.	Salary as Inspector for the year	.....	.....	3 60	1,296 36	
Tomlinson, W. M.	" Asst. Inspector for the year	.....	.....	1 80	948 12	
Dessert, V.	" " "	.....	.....	1 80	939 80	
Thérien, J. F.	" " " from April 1, 1911 to Mch. 1, 1912. Serv. dispensed with.	.....	.....	1 65	777 48	
Fournier, L. A.	" " Inspector from Nov. 4, 1911 to Mch. 31, 1912.	.....	.....	73	366 77	
	Salaries	.....	.....	9 58	4,328 53	
	Contingencies	.....	.....	.....	3,094 88	
						7,423 41
	Three Rivers.					
Gravel, A. I.	Salary as Inspector from April 1 to Dec. 31, 1911. Services dispensed with.	.....	.....	2 70	747 27	
Bédard, E.	" Asst. Inspector for the year	.....	66 00	1 80	773 82	
Lessard, A.	" Inspector from Feb. 10 to Mch. 31, 1912.	.....	.....	50	107 53	
	Salaries	.....	66 00	5 00	1,628 62	
	Contingencies	.....	.....	.....	877 65	
						2,506 27
	St. John.					
Barry, J.	Salary as Inspector for the year	.....	.....	3 60	1,388 00	
Fournier, J. A.	" Asst. Inspector for the year	.....	.....	1 80	598 20	
LeBlanc, F. X.	" " "	.....	.....	1 65	723 29	
White, H. E.	" " "	.....	.....	1 80	939 80	
	Salaries	.....	.....	8 85	3,649 29	
	Contingencies	.....	.....	.....	700 68	
						4,349 97
	Cape Breton.					
Laurence, G. C.	Salary as Inspector for the year	.....	.....	3 60	1,038 06	
	Contingencies	.....	.....	.....	734 62	
						1,772 68
	Halifax.					
Cochrane, J. A.	Salary as Inspector from April 1 to May 1, 1911. Resigned	.....	.....	30	91 36	
Waugh, R. J.	" Asst. Inspector for the year	.....	.....	1 80	689 82	
O'Brien, W.	" Inspector from May 26, 1911 to March 31, 1912	.....	.....	3 05	931 29	
	Salaries	.....	.....	5 15	1,712 47	
	Contingencies	.....	.....	.....	2,085 59	
						3,798 06
	Victoria.					
Dustan, W. M.	Salary as Inspector for the year	21 96	.....	3 60	1,074 36	
Chisholm, J. J.	" Asst. Inspector for the year	.....	.....	1 80	889 86	
	Salaries	21 96	.....	5 40	1,964 22	
	Contingencies	.....	.....	.....	460 69	
						2,424 91

APPENDIX B—*Continued.*

No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1912.

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee	Amounts paid.	Total amounts paid.
	Charlottetown.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Davy, E.	Salary as Inspector for the year	.....	.....	3 60	1,096 32	
Hughes, H.	" Asst. Inspector for the year	.....	.....	1 80	739 86	
	Salaries	.....	.....	5 40	1,836 18	
	Contingencies	.....	.....	.....	226 72	
						2,062 90
	Winnipeg.					
McKay, R.	Salary as Asst. Inspector for the year	.....	.....	1 80	939 80	
Gilby, W. F.	" " "	.....	.....	1 80	689 82	
Spicer, H.	" " "	.....	.....	1 80	839 82	
MacLean, D. J.	" " "	.....	.....	1 80	598 20	
Buote, P. H.	" " from April 1 to Sept. 30, 1911. Resigned Oct. 1, 1911	.....	.....	0 90	299 10	
Walton, G.	" Inspector for the year	.....	.....	3 60	1,496 40	
Grant, C. D.	" Asst. Inspector from July 28, 1911 to Mar. 31, 1912	.....	.....	1 20	465 44	
	Salaries	.....	.....	12 90	5,328 58	
	Contingencies	.....	.....	.....	3,040 01	
						8,368 59
	Calgary					
Costello, J. W.	Salary as Inspector for the year	24 00	.....	3 60	1,172 41	
Cook, J.	" Asst. Inspector for the year	.....	.....	1 80	998 15	
Wilson, W. A.	" " " "	.....	.....	1 80	798 12	
	Salaries	24 00	.....	7 20	2,968 68	
	Contingencies	.....	.....	.....	2,746 30	
						5,714 98
	Vancouver.					
Marshall, R.	Salary as Inspector for the year	.....	.....	3 60	1,346 40	
Dutton, A. H.	" Asst. Inspector for the year	.....	.....	1 80	998 17	
Harris, W. H.	" " " "	.....	.....	1 80	839 82	
Shaw, J.	" " " "	.....	.....	1 80	348 12	
	Salaries	.....	.....	9 00	3,532 51	
	Contingencies	.....	.....	.....	639 40	
						4,171 91
	Nelson.					
Parker, T.	Salary as Inspector for the year	.....	.....	3 60	1,238 00	
	Contingencies	.....	.....	.....	1,281 95	
						2,519 95
	Saskatoon.					
Grant, W. M.	Salary as Inspector from April 1, 1911 to Mar. 1, 1912. Resigned.	.....	.....	3 30	1,096 70	
Ross, J. I. N.	" Asst. Inspector for the year	.....	.....	1 55	776 89	
	Salaries	.....	.....	4 85	1,873 59	
	Contingencies	.....	.....	.....	4,289 04	
						6,162 63
	Dawson.					
Macdonald, J. F.	Salary as Inspector for the year	.....	.....	3 60	996 40	
	Contingencies	.....	.....	.....	12 75	
						1,009 15
	Chief Inspector.					
Fyfe, Jas.	Contingencies	.....	.....	.....	.....	365 34

APPENDIX B—*Continued.*

No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Amounts paid.	Total Amounts paid.
	General Contingencies.	$ cts.	$ cts.
Pritchard-Andrews Co., Ltd., The	Copper brands set, stamps and repairs, &c	539 38	
Fyte, G. D.	Salary from July 4, 1911 to March 31, 1912 at $1,200 per annum	790 32	
Carson, Hugh, Ltd.	W. and M. grips complete and 20 seals, grain leather	159 55	
General Supply Co. of Canada, Ltd., The	1 electric motor	129 00	
Collector of Customs	Duty paid on imported goods	79 95	
Thornton & Truman	Spring catchers, hooks, &c	80 08	
Charleson, W. C	2 doz. brass locks	29 20	
Ottawa Electric Co., The	Current supply, to work shop	58 50	
Adamson, G. C	Shelving, labour, &c., w. & m. shop, Queen St.	89 35	
American Bank Note Co.	Stamps supplied	56 15	
Canadian Pacific Ry. Co.	Charges for freight	6 54	
Garrioh, Godard & Co.	Material for w. & m. office	5 55	
Monthly Review	Subscription for 1 year	2 98	
Birkett, Son & Co.	Nails	2 90	
Guimon, Mrs. U	Cleaning w. & m. office during the year	125 40	
Canadian Express Co.	Express charges	14 43	
Dominion Express Co.	"	18 26	
Postmaster, Ottawa	Stamps	1 00	
Higgerty, Chas.	Commission for passing customs' entries	7 00	
Mahoney, J.	Cartage	1 75	
Bryson, Graham & Co.	Sundries	3 27	
Humsworth, Wm.	Sundries for W. & M. Contingencies	2 66	
	Total general contingencies		2,203 22
	Provisional Allowance.		
Walton, G., Winnipeg, Man.	To pay McLean, D. J.	124 98	
" "	" Buote, P. H.	41 65	
" "	" Grant, C. D.	124 98	
" "	" Spicer, H.	124 98	
" "	" McKay, R.	124 98	
" "	" Gilby, M. F.	124 98	
Costello, J. W., Calgary, Alta.	" Wilson, W. A.	124 98	
" "	" Cook, J.	124 97	
Marshall, R., Vancouver, B.C.	" Dutton, A. H.	124 98	
" "	" Harris, W. H.	124 98	
Grant, W. M., Regina, Sask.	" Humphries, J. H.	124 98	
	Total for provisional allowance		1,291 44

APPENDIX B—*Continued.*

No. 6.—DETAILS of Weights and Measures Expenditures for the Year ended March 31, 1911—*Concluded.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	The International Bureau of Weights and Measures.	$ cts.	$ cts.
	Annual contribution of the Dominion of Canada towards the Bureau's appropriation for 1911.....	.....	209 37
	ADD—Printing.....	1,594 96	
	Stationery.....	567 68	
	Lithographing	5 50	
			2,168 14
	Grand total.....	.....	123,815 75
	ADD—Old balances due by Inspectors April 1, 1911.....	193 26	
	Balance due by Inspectors March 31, 1912.	3 70	
			196 96
	LESS—Old balances due by Inspectors March 31, 1912.....	.....	124,012 71 193 26
	Actual disbursements (less superannuation, insurance, retirement and guarantee) agreeing with statement No. 19a and No. 19b, pages 48 and 49.....		123,819 45

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX B—*Continued.*

No. 7.—DETAILS of Gas Inspection Expenditures for the Year ended March 31, 1912.

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Lorne.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Shanacy, M.	Salary as Inspector for the year	2 00	.....	3 60	94 40	
	Contingencies	.....	.....	.....	1 90	
						96 30
	Belleville.					
Johnson, W.	Salary as Inspector for the year	9 00	.....	3 60	437 40	
Stuart, W. E.	" Asst. Inspector from April 1 to Dec. 31, 1911. Resigned Jan. 1, 1912	....	.....	2 16	72 81	
	Salaries	9 00	.....	5 76	510 21	
	Contingencies	.....	.....	.....	251 35	
						761 56
	Berlin.					
Powell, J. B.	Salary as Inspector for the year	.....	.....	3 60	164 07	
	Contingencies	.....	.....	.....	112 65	
						276 72
	Cobourg.					
Bickle, J. W.	Salary as Inspector for the year	2 00	....	3 60	94 40	
	Contingencies	.....	.....	.....	61 52	
						155 92
	Brockville.					
Fraser, H.	Contingencies	.....	.....	.....	....	163 84
	Guelph.					
Broadfoot, S.	Salary as Inspector for the year	6 00	....	3 60	290 40	
	Contingencies	.....	.....	.....	68 49	
						358 89
	Hamilton.					
McPhie, D.	Salary as Inspector for the year	39 96	.....	3 60	1,956 36	
McPhie, W. H.	" Asst. Inspector for the year	.....	.....	1 80	989 82	
Murphy, F. C.	" " "	.....	.....	1 80	939 80	
Dennis, F. C.	" " "	.....	.....	1 80	148 20	
	Salaries	39 96	.....	9 00	4,034 18	
	Contingencies	.....	.....	.....	377 10	
						4,411 28
	Lindsay.					
Made, T.	Salary as Inspector for the year	.....	.....	3 60	96 40	
	Contingencies	.....	.....	.....	90 00	
						186 40
	London.					
Nash, A. F.	Salary as Inspector for the year	.....	.....	3 60	1,596 36	
Skelton, A. R.	" Asst. Inspector for the year	.....	.....	1 80	839 82	
	Salaries	.....	.....	5 40	2,436 18	
	Contingencies	.....	.....	.....	735 02	
						3,171 20

APPENDIX B—*Continued.*

No. 7.—Details of Gas Inspection Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deduction for Superannuation.	Deduction for Retirement.	Deduction for Guarantee	Amount paid.	Total amounts paid
	Napanee.	$ cts.	$ cts	$ cts.	$ cts.	$ cts.
Johnson, W.	Contingencies					40 28
	Ottawa.					
Roche, H. G	Salary as Inspector for the year			3 60	1,346 40	
Roche, W. J	" Asst. Inspector for the year			2 88	988 74	
Bond, M. B	" " "			2 88	988 74	
	Salaries			9 36	3,323 88	
	Contingencies				844 39	
						4,168 27
	Owen Sound.					
Graham, W. J	Salary as Inspector for the year			3 60	196 40	
	Contingencies				1 00	
						197 40
	Peterborough					
Rork, T	Salary as Inspector for the year			3 60	146 40	
	Contingencies				4 00	
						150 40
	Sarnia.					
Thrasher, W. A.	Salary as Inspector for the year			3 60	196 40	
	Contingencies				3 65	
						200 05
	Stratford.					
Rennie, Geo	Salary as Inspector for the year	4 00		3 60	192 40	
	Contingencies				13 00	
						205 40
	Toronto.					
Reesor, M. W.	Salary as Asst. Inspector from Nov. 1, 1911 to March 31, 1912. Brought from Regina			0 75	540 90	
Pape, J	" Asst. Inspector for the year			1 80	1,239 80	
Hunter, W. M.	" " from April 1 to Nov. 28, 1911. Removed to Regina			1 05	661 42	
Stiver, J. L.	" Inspector for the year		74 99	3 60	1,421 41	
Renahan, M. J.	" Asst. Inspector for the year			1 80	939 80	
Ogden, G. J	" " "			1 80	839 82	
Clark, H. M.	" " "			1 80	798 12	
Johnstone, S. F.	" " "			1 80	798 12	
	Salaries		74 99	14 40	7,239 39	
	Contingencies				1,287 85	
						8,527 24

APPENDIX B—*Continued.*

No. 7.—DETAILS of Gas Inspection Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Woodstock.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Orr, H. N.	Salary as Inspector for the year	....	.....	1 80	198 20	
	Contingencies	..	.....	.....	12 30	
						210 50
	Montreal.					
Aubin, A.	Salary as Inspector for the year	.....	.....	3 60	1,996 32	
O'Flaherty, M. J.	" Asst. Inspector for the year	...	.....	1 80	989 82	
Aubin, C.	" " "	..	.....	2 88	1,938 78	
Mann, W.	" " "	.....	.....	2 88	988 74	
	Salaries	..	.....	11 16	5,913 66	
	Contingencies	.....	.....	.....	1,331 63	
						6,345 29
	Quebec.					
LeVasseur, N.	Salary as Inspector for the year	22 76	.....	3 60	1,115 26	
Beland, E.	" Asst. Inspector for the year	.. ..	.....	3 60	463 00	
	Salaries	22 76	.....	7 20	1,578 26	
	Contingencies	...	.....	.....	272 10	
						1,850 36
	Sherbrooke.					
Simpson, A. F.	Salary as Inspector for the year	3 80	.....	3 60	184 20	
Bowen, F. C.	" Asst. Inspector for the year	.....	.....	1 80	139 86	
	Salaries	3 80	.....	5 40	324 06	
						324 06
	St. Hyacinthe.					
Benoit, L. V.	Salary as Inspector for the year	....	.....	1 80	.....	
						98 20
	Fredericton.					
Wilson, J. E.	Salary as Inspector for the year	....	.....	1 80	.....	
						98 20
	St John.					
Wilson, J. E.	Salary as Inspector for the year	.....	.....	3 60	1,296 40	
	Contingencies	.....	.....	.....	148 90	
						1,445 30
	Halifax.					
Toale, J.	Salary as Inspector for the year	....	.....	3 60	1,196 40	
Munro, H. D.	" Asst. Inspector for the year	1 92	.....	1 80	96 24	
Withers, S. W.	" " "	.....	.....	1 80	898 20	
	Salaries	1 92	.....	7 20	2,190 84	
	Contingencies	...	.....	.....	1,119 09	
						3,309 93

APPENDIX B—*Continued.*

No. 7.—Details of Gas Inspection Expenditures for the Year ended March 31, 1912—*Concluded.*

To whom paid.	Services.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee	Amounts paid.	Total Amounts paid.
	Charlottetown.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Bell, J. H.	Salary as Inspector for the year	.....	.....	3 60	.....	496 40
	Winnipeg.					
Hamilton, R.	Salary as Inspector for the year	.....	.....	3 60	1,579 70	
Babington, F. C.	" Asst. Inspector for the year	.....	.....	1 80	1,039 86	
	Salaries	.....	.....	5 40	2,619 56	
	Contingencies	.....	.....	.....	146 85	
						2,766 41
	Calgary.					
Kyle, W. P.	Contingencies	.....	.....	.....	.....	155 60
	Nanaimo.					
Shaw, J	Salary as Inspector for the year	.....	.....	3 60	.....	96 40
	New Westminster.					
Wolfenden, W.	Salary as Inspector for the year	10 00	.....	3 60	186 40	
	Contingencies	.....	.....	.....	2 75	
						189 15
	Vancouver.					
Stott, Jas.	Contingencies	.....	.....	.....	.....	122 40
	Victoria.					
Jones, R.	Salary as Inspector for the year	6 00	.....	3 60	.....	290 40
	Eastern Dominion Inspector.					
Lambe, A. B.	Contingencies	.....	.....	.....	.....	382 60
	Western Dominion Inspector.					
Higman, O.	Contingencies	.....	.....	.....	.....	70 04

APPENDIX B—*Continued.*

No. 7.—DETAILS of Gas Inspection Expenditures for the Year ended March 31, 1912—*Concluded.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	General Contingencies.	$ cts.	$ cts
American Bank Note Co....	Stamps supplied	400 50	
Pritchard & Andrews Ltd. The	Daters, seals, stamps and general repairs	111 40	
Wright, Alex. & Co	Apparatus &c. for electrical laboratory	580 59	
Canadian Consolidated Rubber Co., Ltd	Rubber hose and tubing	245 25	
Harrison & Co	6 doz. sets, beakers	54 00	
Gutta Percha Rubber Co....	Rubber tubing	23 40	
Collector of Customs	Duty paid on imported goods	31 65	
Canadian Pacific Railway...	Freight	5 38	
Thornton & Truman	General repairs, &c	2 35	
Dominion Express Co	Express charges	2 25	
Mahoney, J	Cartage	1 00	
Canadian Express Co	Express charges	2 48	
Himsworth, W	Sundries	0 65	
	Total for gas contingencies		1,460 90
	ADD—Printing	1,083 52	
	Stationery	1,041 15	
			2,124 67
	Grand total		44,913 96
	ADD—Balances due by Inspectors March 31, 1912		212 88
			45,128 84
	LESS—Balances due by Inspectors April 1, 1911		212 88
	Actual disbursements agreeing with statement No. 21, page 52		44,913 96

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX B—*Continued.*

No. 8.—DETAILS of Electric Light Inspection Expenditures for the Year ended March 31, 1912.

To whom paid.	Service.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Belleville.	$ cts.	$ cts.	$ cts.
Fraser, H.	Salary as Inspector	7 20	992 80	
	Contingencies	.....	557 74	
				1,550 54
	Hamilton.			
McPhie, D.	Contingencies	.....	.....	195 74
	London.			
Nash, A. F.	Contingencies	.....	.....	398 35
	Ottawa.			
Roche, H. G.	Contingencies	.....	.....	500 75
	Toronto.			
Stiver, J. L.	Contingencies	.....	.....	1,730 65
	Montreal.			
Aubin, A	Contingencies	.....	.....	863 12
	Quebec.			
LeVasseur, N.	Contingencies	.....	.....	86 60
	Sherbrooke.			
Simpson, A. F.	Contingencies	.....	.....	193 35
	St. Hyacinthe.			
Provost, I. E.	Salary as Inspector for the year	1 80	298 20	
	Contingencies	.....	87 00	
				385 20
	Three Rivers.			
Robitaille, G. W.	Salary as Inspector for the year	1 80	498 20	
	Contingencies	.....	252 96	
				751 16
	St. John.			
Wilson, J. E.	Contingencies	.....	.....	374 76
	Halifax.			
Toale, John	Contingencies	.....	.....	249 97
	Charlottetown.			
Bell, J. H.	Contingencies	.....	.....	109 12
	Winnipeg.			
Hamilton, R.	Contingencies	.....	.....	2,149 12

APPENDIX B—*Continued.*

No. 8.—Details of Electric Light Inspection Expenditures for the Year ended March 31, 1912—*Continued.*

To whom paid.	Services.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.	$ cts.
	Ontario.			
Kyle, W. P.	Salary as Inspector from Nov. 27, 1911 to March 31, 1912	1 50	498 59	
	Contingencies	....	341 26	
				840 76
	Edmonton.			
Roe, E. A.	Salary as Inspector for the year	3 60	1,479 72	
	Contingencies	.....	465 78	
				1,945 50
	Regina.			
Reesor, M. W.	Salary as Inspector from April 1 to Nov. 1, 1911. Removed to Toronto Gas Division	2 10	739 55	
Hunter, W. M.	Salary as Inspector from Nov. 1 to March 31, 1912. Brought from Toronto Gas Division	1 50	540 15	
	Salaries	3 60	1,279 70	
	Contingencies	.....	434 60	
				1,714 30
	Vancouver.			
Stott, Jas.	Salary as Inspector for the year	3 60	1,579 70	
Templeton, W. A.	" Asst. Inspector for the year	3 60	1,138 04	
Power, O. S.	" " "	1 80	1,039 84	
	Salaries	9 00	3,757 58	
	Contingencies	.....	749 18	
				4,506 76
	Victoria.			
Jones, R.	Contingencies	.....	.....	98 67
	Yukon.			
Macdonald, J. F.	Salary as Inspector for the year	3 60	.....	496 40
	Chief Engineer.			
Higman, O.	Contingencies	.....	.....	1,474 49
	Dominion Western Chief Inspector.			
Higman, O.	Salary as Chief Inspector, Gas and Electricity for Western Dominion	2 70	1,843 96	
	Contingencies	.....	592 49	
				2,436 45
	Dominion Eastern Chief Inspector.			
Lambe, A. B.	Salary as Dominion Eastern Inspector for Electric Light	3 60	2,379 72	
	Contingencies	.....	101 15	
				2,480 87

APPENDIX B—*Continued.*

No. 8.—DETAILS of Electric Light Expenditures for the Year ended March 31, 1912—*Concluded.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	General Contingencies.	$ cts.	$ cts.
American Bank Note Co..	Stamps supplied	191 80	
Weston Electrical Instrument Co	Electrical instruments &c. for laboratory	1,346 75	
Blakeslee, H. J.	1 testing transformer	405 50	
Canadian General Elec. Co.	Electrical instruments, supplies &c. for laboratory	3,436 71	
Sugg, W., & Co.	" " "	254 65	
Ahearn & Soper Ltd	" " "	234 65	
Garioch, Godard & Co.	" " "	47 16	
Oertling, L.	2 Agathe knife edges	3 65	
Harty, J. F., Co., Ltd., The	1 water still and box	12 30	
Kelvin & White, Jas., Ltd.	Instruments for laboratory	55 93	
National Phonograph Co.	Supplies, &c. for "	81 15	
Simplex Electric Heating Co	" "	35 15	
Gould Storage Battery Co.	" "	138 15	
Lymans Ltd	" "	43 35	
American Hand Rubber Co	" "	16 98	
National Drug & Chemical Co.	" "	44 20	
Roper, Clarke & Co., Ltd.	" "	625 00	
Pratt & Whitney	" "	2 53	
Lawson, Thos., & Sons, Ltd	" "	28 05	
Pacific Ry. Co.	Freight	21 62	
Collector of Customs	Duty on imported goods	690 26	
Dominion Express Co.	Express charges	6 74	
Canadian Express Co.	"	3 70	
Higgerty, Chs.	Commission for passing Customs' entries	7 50	
Pinhey & Co.	" "	3 00	
Himsworth, W.	Sundries	2 01	
	Total general electric light contingencies		7,738 49
	International Electro-Technical Commission		243 89
	Add—Printing	1,005 14	
	Stationery	446 65	
			1,451 79
	Grand total		34,966 80
	Add balance due by Inspector, March 31, 1912		300 00
	Actual disbursements agreeing with Statement No. 23, page 56		35,266 80

INLAND REVENUE DEPARTMENT.

OTTAWA, June 1, 1912.

W. J. GERALD,

Deputy Minister.

APPENDIX B—*Continued.*

STATEMENT No. 9.—Showing the amount paid during the Year 1911-12 to different companies for guaranteeing outside officers of the Inland Revenue Department.

——	Amounts paid.	Total amounts paid.
	$ cts.	$ cts.
The Railways Passenger Assurance Co.	193 79	
The Imperial Guarantee and Accident Insurance Co.	474 85	
The Dominion of Canada Guarantee and Accident Co.	423 60	
The Guarantee Co. of North America	432 54	
The London Guarantee and Accident Assurance Co.	187 07	
The Employers Liability Assurance Corporation	452 69	
Total		2,164 54

APPENDIX B—*Continued.*

No. 10.—List of Permanent Employees of the Inland Revenue Department employed on salary during the Year ended March 31, 1912.

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food, Inspection.
Abbott, H. F		1					
Adams, A. R		1					
Alexander, Thos		1					
Allen, A. T	1						
Allen, G. A		1					
Alteman, Peter J		1					
Amor, Wm		1					
Andrews, A. A		1					
Arcand, D		1					
Archambault, J. E			1				
Armstrong, T. E		1					
Armstrong, Walter	1						
Aubin, A				1	1		
Aubin, C				1	1		
Auger, L. H		1					
Babington, F. C				1	1		
Baby, W. A. D		1					
Baikie, D		1					
Ballantyne, A		1					
Barbeau, L	1						
Barber, J. S		1					
Barnes, G		1					
Barrett, J. K		1					
Barrett, J. P		1					
Barry, James			1				
Bayard, Gilbert A		1					
Beard, Miss M. H	1						
Beasley, M. C		1					
Beaulac, J. H			1				
Beaulieu, J. B		1					
Bélair, A. (Plessis dit)		1					
Béland, F. X. W. E				1	1		1
Bélisle, E	1						
Bell, J. H				1	1		
Belleperche, A. J. E		1					
Belyea, T. H		1					
Bénéteau, S		1					
Bennett, James		1					
Benoit, L. V		1		1			
Bergeron, E. L		1					
Bergeron, R. J		1					
Bernard, N. J. D		1					
Bernier, Jean A			1				
Bernier, J. Auguste		1					
Berry, H. L		1					
Bickle, J. W		1		1			
Bissell, C. H		1					
Blackman, C		1					
Blethen, C. W		1					
Blyth, Alex		1					
Bolduc, Ephrem			1				
Bond, M. B				1			
Boomer, J. B		1					
Boudet, E			1				
Bourgeois, C		1					
Bourgeois, E	1						
Bourget, L. J			1				
Bourget, O		1					
Bousquet, A		1					

APPENDIX B—*Continued.*

No. 10.—List of Permanent Employees of the Inland Revenue Department, 1911-1912—*Continued.*

Names.	Service.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Bousquet, J. O		1					
Bouteiller, G. A		1					
Bowen, F. C		1		1	1		
Bowman, Allan		1					
Boyd, J. F. S		1					
Boyd, S. I		1					
Boyle, P		1					
Brabant, J. B. G. N		1					
Brain, A. F		1					
Breen, John			1				
Brennan, John		1					
Bridgman, M. W		1					
Broadfoot, S		1		1			
Brohen, P. E. S	1						
Brown, W. J		1					
Bruce, G. B		1					
Burgess, T	1						
Burke, T		1					
Burns, R. J		1					
Butler, F. H			1				
Byrne, W. P		1					
Cahill, J. H		1					
Cahill, J. W		1					
Caldwell, A. B			1				
Cameron, D. M		1					
Campbell, A. E		1					
Campeau, F. R. E	1						
Cantin, J. W. Z	1						
Carroll, D		1					
Carroll, F. P		1					
Casey, F. J		1					
Caven, W		1					
Chagnon, C. P		1					
Chartier, Etienne		1					
Chateauvert, G. E	1						
Chesseldine, J. H		1					
Chilver, F. W		1					
Chisholm, J. J			1				
Chisholm, W. N		1					
Church, G. C			1				
Clark, H. M				1	1		
Clark, James Alfred		1					
Clarke, Thomas		1					
Clegg, Jos			1				
Codd, Herber J. S		1					
Code, Abraham		1					
Cole, N. R	1						
Coleman, Charles		1					
Coleman, J. J		1					
Coles, F. H		1					
Comte, L. A. A. J		1					
Conklin, W. M		1					
Cook, J			1				
Cook, W. J		1					
Cook, W. R		1					
Costello, J. W			1				
Costigan, J. J		1					1
Coughlin, D			1				

APPENDIX B—*Continued.*

No. 10—List of Permanent Employees of the Inland Revenue Department, 1911–1912—*Continued.*

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Coulter, Alex		1					
Courtney, J. J		1					
Coutts, J. J		1					
Crevier, J. H		1					
Cryderman, C. W		1					
Cruickshank, J. L			1				
Cummiford, F. D		1					
Currie, W. W		1					
Dager, H. J		1					1
Dalton, M. J		1					
Daoust, J. A			1				
Daveluy, J. P		1					
David, T		1					
Davis, T. G		1					
Davy, Edward			1				
Dawson, W		1					
Deely, F		1					
Deland, A. N		1					
Dennis, F. C				1	1		
Desaulniers, J. E. A		1					
Dessert, V			1				
Dingman, N. J		1					
Dixon, H. G. S		1					
Dontigny, H		1					
Dowling, D. J		1					
Doyle, B. J		1					
Doyle, E. F	1						
Doyon, J. A	1						
Dunbar, G. E		1					
Dumaine, J. D		1					
Dumbrille, R. W		1					
Dumouchel, Léandre		1					
Dunlop, C		1					
Duplessis, C. Z		1					
Dustan, W. M			1				
Dutton, A. H			1				
Dwyer, D. T		1					
Eakins, G. G		1					
Earl, R. W		1					
Egan, Wm		1					
Egener, A		1					
Elliott, T. H		1					
Elliott, W. J		1					
Evans, C. J	1						
Evans, G. T		1					
Fahey, Ed		1					
Fairley, W		1					
Falconer, James		1					
Falconer, R. H		1					
Farmer, R. C		1					
Ferguson, John C		1					1
Fiddes, James		1					
Fidler, H		1					
Fielding, Laura G		1					
Filteau, J. R		1					
Findlay, R			1				
Fitzgerald, E. W			1				
Fitzpatrick, W. J		1					

APPENDIX B—*Continued.*

No. 10—List of Permanent Employees of the Inland Revenue Department, 1911-1912—*Continued.*

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Fletcher, R. W		1					1
Floody, E						1	
Forest, E. R		1					
Forster, E. L. C	1						
Forsyth, D		1					
Forward, C. C	1						
Foster, J. Henry		1					
Fowler, George	1						
Fox, J. D.		1					
Fox, Thomas		1					
Francoeur, A		1					
Frankland, H. R		1					
Fraser, H				1	1		
Fraser, P		1					
Freeland, Anthony		1					
Furlong, C. J.	1						
Fyfe, James	1						
Galipeau, J. B. N.			1				
Gallagher, T			1	1	1		
Gamache, J. N		1					
Gariepy, L. N		1					
Gauvin, E		1					
Geldart, O. A		1					
George, John		1					
Gerald, C		1					
Gerald, W. H		1					
Gerald, W. J.	1						
Gervais, J. A		1					
Gervais, J. H	1						
Gilby, W. F			1				
Gillies, Archibald L		1					
Gilpin, R. R		1					
Girard, Irene		1					
Goodhue, M. L. E. B	1						
Goodman, A. W		1					
Gorman, Arthur M		1					
Gosnell, T. S		1					
Goudie, D. A		1					
Gow, J. E		1					
Graham, A. L		1					
Graham, W. J		1		1			
Graham, W. T		1					
Grant, H. H		1					
Granton, C		1					
Gray, R. S		1					
Graveline, D. P.		1					
Greigg, W. G		1					
Gregor, R. W		1					
Griffin, P. F.		1					
Grffith, M. L	1						
Grimason, Thomas		1					
Grosbois, (de), Chas. B		1					
Hagerty, B	1						
Halliday, W. A	1						
Hambley, S. E		1					
Hamilton, R				1	1		
Hammond, T. W		1					
Hanley, A		1					
Hanlan, J. R		1					

APPENDIX B—*Continued.*

No. 10—List of Permanent Employees of the Inland Revenue Department, 1911-1912—*Continued.*

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Harris, W. H			1				
Harwood, J. O. A		1					
Hayhurst, T. H		1					
Hébert, C. D		1					
Hebert, J. A			1				
Helliwell, H. N		1					
Henderson, H. D. G		1					
Hesson, C. A		1					
Hicks, W. H		1		1			
Higman, O	1						
Himsworth, Wm	1						
Hinchey, E. H			1				
Hiscott, J. O		1					
Hodgins, H. A			1				
Hogan, James		1					1
Howell, Thomas		1					
Howie, A		1					
Howson, G. H			1				
Hubley, H. H		1					
Hudon, L. E		1					
Huggett, A. P		1					
Hughes, Henry			1				
Hughes, P. A	1						
Hughes, R. A			1				
Hunter, W. M				1	1		
Hurst, Levi, B		1					
Iler, B		1					
Ivery, W. J		1					
James, T. C		1					
Jameson, S. B		1					
Jamieson, R. C		1					
Jeffrey, A. J		1					
Johnson, J. J		1					
Johnson, Wm			1	1			
Johnston, C. W			1	1	1		
Johnston, H. J		1					
Johnstone, S. F				1	1		
Jones, Andrew		1					
Jones, Richard		1		1			
Kearney, D. J		1					
Keay, W. S		1					
Keeler, G. S		1					
Kelly, J. T						1	
Keogh, P. M		1					
Kidd, Thomas							1
King, R. M		1					
Kirkpatrick, H. J		1					
Kitto, W. V	1						
Knowles, C			1				
Kylie, R			1				
Labelle, L. V		1					
Ladouceur, J	1						
Laidman, Richard H			1				
Lally, J. E		1					
Lambe, A. B				1	1		
Lambert, J. A		1					
Lamoureux, J. A		1					
Lane, T. M		1					

APPENDIX B—*Continued.*

No. 10—List of Permanent Employees of the Inland Revenue Department, 1911-1912—*Continued.*

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Langelier, François		1					
Laporte, Geo		1					
Lariviere, A. C		1					1
LaRue, Alexandre		1					
Laurier, J. L		1					
Lawless, E. M	1						
Lawlor, H		1					
Lawlor, John J		1					
LeBel, J. A. W			1				
Lee, Edward		1					
LeMoine, A	1						
LeMoine, Jules		1					
Lesperance, J. A		1					
Le Vasseur, N				1	1		
Lewis, H. B	1						
Liddle, D			1				
Long, W. H. A		1					
Longtin, H		1					
Love, G. G		1					
Lyon, A. V	1						
Lyons, E		1					
Macdonald, A. B		1					
Macdonald, G		1					
Macdonald, J. A			1				
Macdonald, J. F		1	1		1		
Mackenzie, J. H		1					
MacLean, C. E				1			
MacLean, D. J				1			
Mainville, C. P		1					
Male, Thomas				1			
Mann, W				1	1		
Maranda, N. A		1					
Marin, L. H		1					
Marin, N. H		1					
Marion, H. R		1					
Marshall, R			1				
Martin, N		1					
Martineau, O. E. J		1					
Mason, F		1					
Maurice, E		1					
Mathews, E. D. K	1						
Melville, T. R		1					
Miller, J. E		1		1	1		
Miller, W. F		1					
Miller, Elie		1					
Milligan, R. J			1				
Milliken, E		1					
Milot, J. F		1					
Mitchell, J. L		1					
Morforton, E		1					
Montgomery, W. H		1					
Mooney, G. B		1					
Moore, T		1					1
Morgan, E. J		1					1
Morin, J. P			1				
Morris, T. H		1					
Munro, H. D		1		1	1		
Murdoch, James			1				
Murphy, F. C				1	1		

APPENDIX B.—*Continued.*

No. 10.—List of Permanent Employees of the Inland Revenue Department, 1911-1912—*Continued.*

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Murray, David		1					
McArthur, G. H		1					
McCloskey, J. R		1					
McConvey, J			1				
McCoy, Wm		1					
McCullough, A	1						
McCutcheon, H		1					
McDonald, A. J		1					
McFee, C		1					
McGill, A	1						
McGowan, J		1					
McGuire, L. J		1					
McGuire, T		1					
McKay, R			1				
McKell, M. E. E	1						
McLenaghan, N		1					
McNaughton, J. C		1					
McNiven, J. D		1					
McPherson, E. A		1					
McPhie, Donald				1	1		
McPhie, W. H				1	1		
McSween, James		1					
Nash, A. F				1	1		
Neil, James		1					
Newsome, J		1					
Nicholl, F. A		1					
Niven, T. D		1					
Noonan, H. T		1					
Noonan, J. M		1					
Normandin, G		1					
O'Brien, E. C		1					
O'Brien, James		1					
O'Brien, J. F		1					
O'Donnell, J		1					
O'Donnell, M. J		1					
O'Donohue, M. J		1					
O'Flaherty, M. J				1			
Ogden, G. J				1	1		
O'Leary, T. J		1					
Oliver, J. T		1					
Olivier, H		1					
Orr, Henry N		1		1			
Ostiguy, L. R	1						
O'Sullivan, D		1					1
Panneton, G. E		1					
Pape, James				1	1		
Parent, F	1						
Parker, Thomas			1				1
Parkinson, Edward B		1					
Patry, J. H		1					
Patterson, C. E. A		1					
Pelletier, N. G		1					
Pitman, C		1					
Pleasance, W		1					
Poirier, J. N		1					
Poitras, Wilfrid		1					
Popham, F. H	1						

APPENDIX B.— *Continued.*

No. 10.—List of Permanent Employees of the Inland Revenue Department, 1911 - 1912.— *Continued.*

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Powell, J. B		1		1			
Power, J. F		1					1
Power, O. S				1	1		
Préfontaine, F. H			1				
Provost, I. E					1		
Publow, W. J		1					
Quain, Redmond	1						
Quinn, J. D		1					
Reesor, M. W				1	1		
Renahan, M. J				1			
Renaud, A. H		1					
Rennie, George		1		1			
Rickey, J. A	1						
Ridgman, A. H		1					
Ritchie, H		1					
Robins, S. W			1				
Robert, A	1						
Robillard, G. A		1					
Robitaille, G. W					1		
Roche, H. G				1	1		
Roche, W. J				1			
Roe, E. A					1		
Rork, T.		1		1			
Rose, John A		1					
Ross, H. E		1					
Rouleau, C. E		1					
Rouleau, J. C., jr		1					1
Rousseau, Elzéar H		1					
Rowan, W. E		1					
Roy, C. E			1				
Roy, I.	1						
Roy, L. G	1						
Saucier, X		1					
Scanlan, T. J		1					
Schram, R. L. H		1					
Schuler, F. C		1					
Scullion, W. J		1					
Sealey, J. C			1				
Shanacy, M		1		1	1		
Shaw, J		1	1	1			
Shaw, J. F	1						
Sherey, A. B		1					
Simpson, A. F		1		1	1		
Simpson, W. A		1					
Skelton, A. R				1	1		
Slattery, Thomas			1				
Sloan, W		1					
Smith, B. H		1					
Smith, J. C			1				
Snowdon, J. W		1					
Sparling, J. W		1					
Spence, F. H		1					
Spicer, H			1				
Sprague, F. W		1					
Standish, J. G		1					
Stone, J. L				1	1		
Stuart, James				1	1		

APPENDIX B—*Continued.*

No. 10—List of Permanent Employees of the Inland Revenue Department, 1911-1912—*Continued.*

Names.	Services.						
	Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.	Preventive.	Food Inspection.
Stratton, W. C		1					
St. Michel, F. X		1					
Sykes, W. J		1					
Talbot, John		1					1
Taylor, G. W	1						
Teevens, L. P	1						
Templeton, W. A				1	1		
Thomas, J. S			1				
Thomas, F. W		1					
Thomas, Robert		1					
Thorborn, J		1					
Thrasher, W. A		1		1			
Thurber, G		1					
Till, T. M		1					
Timmons, R		1					
Toale, J				1	1		
Tobin, Thomas S		1					
Tomlinson, W. M			1				
Tompkins, P		1					
Toupin, J. A		1					
Tracy, J. P		1					
Trumpour, G	1						
Tytler, J. M		1	1	1	1		
Valin, J. E	1						
Valin, J. A. G	1						
Verner, Thomas H		1					
Waddell, S. J		1					
Walker, J. H., jr		1					
Walsh, Daniel J		1					
Walsh, W. H		1					
Watson, V. M	1						
Walton, G			1				
Waugh, R. J			1				1
Way, E. O	1						
Webbe, C. E. A		1					
Weeks, W. A		1					
Westman, T	1						
Wheatley, Alfred E			1				
White, H. E			1				
White, J B		1					
Whitehead, J. P		1					
Wilson, David		1					
Wilson, H. R		1					
Wilson, J. C			1				
Wilson, J. E				1			
Wilson, W. A			1				
Wink, J. C		1					
Withers, S. W				1	1		
Withinshaw, E		1					
Wolfenden, William		1		1			
Wood, C. T		1					
Wood, James A		1					
Woodward, G. W		1					
Wright, Robert J			1				
Wright, S. E	1						
Yetts, R. P	1						
Young, J. J		1					
Young, R. E		1					
Totals	58	357	70	57	41	2	16

APPENDIX B—*Continued.*

No. 11.—List of Permanent Employees of the Inland Revenue Department employed on Salary during only a portion of the Year ended March 31, 1912.

Names.	Period.	Services.				
		Inside.	Excise.	Weights and Measures.	Gas.	Electric Light Inspection.
Beauchamp, Dr. L. E.	From March 16, 1912 to March 31, 1912			1		
Bezaire, T. M	" August 1, 1911 to March 31, 1912			1		
Bugeaud, J. F	" April 1,1911 to December 1, 1911			1		
Buot, P. H.	" April 1, 1911 to October 1, 1911			1		
Charbonneau, Mrs. E.	" April 1, 1911 to October 1, 1911	1				
Cochran, J. A	" April 1, 1911 to May 1, 1911			1		
Davidson, Miss E.	" April 1, 1911 to July 15, 1911	1				
Desmarais, H. F	" April 1, 1911 to August 1, 1911		1			
Dibblee, W	" April 1, 1911 to July 1, 1911		1			
Dick, W. J	" April 1, 1911 to November 1, 1911		1			
Dickson, C. T	" April 1, 1911 to October 1, 1911		1			
Dumontier, J. A	" January 15, 1912 to March 31, 1912		1			
Flemming, C.	" April 1, 1911 to February 15, 1912		1			
Forest, M	" April 1, 1911 to January 1, 1912		1			
Fournier, L. A	" November 4, 1911 to March 31, 1912			1		
Grant C. D	" August 1, 1911 to March 31, 1912			1		
Grant, W. M.	" April 1, 1911 to March 1, 1912			1		
Gravel, A. I	" April, 1, 1911 to January 1, 1912			1		
Guay, Alp	" April 1, 1911 to March 1, 1912			1		
Hagan, J	" April 1, 1911 to February 29, 1912	1				
Hall, H. E	" April 1, 1911 to September 1, 1911			1		
Hawkins, W. L	" April 1, 1911 to December I, 1911		1			
Higman, O., Jr	" June 24, 1911 to March 31, 1912				1	1
Howard, W. W. S	" February 12, 1912 to March 31, 1912		1			
Johnston, E. J. A	" May 11, 1911, to March 31, 1912		1			
Jubenville, J. P	" April 1, 1911 to February 1, 1912		1			
Ladouceur, J. A	" January 1, 1912 to March 31, 1912			1		
Laflamme, J. L. K	" November 15, 1911 to March 31, 1912	1				
Lawrence, G. C	" April 1, 1911 to October 31, 1911			1		
Leblanc, F. X	" April 1, 1911 to March 1, 1912			1		
Leckie, T. L	" August 7, 1911 to March 31, 1912	1				
Lessard, A.	" February 12, 1912 to March 31, 1912			1		
Lyons, A	" April 1, 1911 to January 11, 1912			1		
Mackay, J. C	" March 16, 1912 to March 31, 1912		1			
Marentette, A	" April 1, 1911 to January 1, 1912			1		
Marin, N. H	" April 1, 1911 to January 1, 1912		1			
Nash, S. C	" April 1, 1911 to May 1, 1911		1			
Newby, F	" April 1, 1911 to September 30, 1911	1				
Nicholas, B. C	" April 1, 1911 to December 1, 1911	1				
O'Brien, W	" May 26, 1911 to March 31, 1912			1		
Petit, J. B.	" April 1, 1911 to January 1, 1912			1		
Portelance, P. A	" April 1, 1911 to March 1, 1912		1			
Ralston, T	" April 1, 1911 to October 1, 1911		1			
Relihan, Jas	" August 5, 1911 to March 31, 1912		1			
Richard, J. B. T	" March 16, 1912 to March 31, 1912		1			
Rinfret, C. I.	" April 1, 1911 to December 1, 1911		1			
Robitaille, J. C	" July 1, 1911 to February 9, 1912		1			
Ross, J. I. N	" April 1, 1911 to February 12, 1912			1		
Rudkins, W.	" April 1, 1911 to August 7, 1911		1			
Ryan, W	" April 1, 1911 to June 1, 1911		1			
Simpson, G	" June 1, 1911 to March 31, 1912		1			
Slattery, R	" April 1, 1911 to May 1, 1911			1		
Stuart, W. E	" April 1, 1911 to July 31, 1911				1	
Sutherland, W	" June 1, 1911 to March 31, 1912		1			
Therien, J. F	" April 1, 1911 to March 1, 1912			1		
Windsor, J. A	" April 1, 1911 to January 1, 1912		1	1		
		7	25	23	2	1

APPENDIX B—*Concluded.*

No. 12.—NUMBER of Permanent Employees of the Inland Revenue Department and the different services in which they were employed during the Year ended March 31, 1912.

RECAPITULATION.

Employed during the year	523
" a portion of the year	56
Total	579

SERVICES.

Inside	65
Excise	356
Weights and Measures	84
Gas	7
Electric Light	3
Preventive	2
Food	1
Excise, and Weights and Measures	1
" Weights, and Measures and Gas	1
" and Gas	11
" Gas and Electric Light	5
" and Food	12
" Weights and Measures, Gas and Electric Light	1
Excise Weight and Measures and Electric Light	1
Weights, Measures, Gas and Electric Light	2
" " and Food	2
" " and Gas	1
Gas and Electric Light	29
Gas, Electric Light and Food	1
	579

W, J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

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Alexander, T.	Contingencies and salary	128
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"	Provisional allowance	143
"	Salary	139
Allison, John B.	Commission	145
Alteman, P. J.	Salary	127
American Bank Note Co.	Contingencies	142, 151, 164, 170, 173
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Amor, William	Duty-pay	148
"	Salary	127
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Baldwin, E. H.	Contingencies	153
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"	Salary	139

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Barry J.	Contingencies and salary	161
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Begg, G. C.	Refunds	39
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"	Salary	169
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" Gas District	Contingencies and Salaries	166
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"	Salary	168
Bergeron, E. L.	Duty-pay	147
"	Salary	135
Bergeron, R. J.	Duty-pay	147
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Bourget, L. J.	"	161
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"	Salary	135
Bousquet, A.	"	135
Bousquet, J. O.	Duty-pay	148
"	Salary	134
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REPORTS, RETURNS AND STATISTICS

OF THE

INLAND REVENUES

OF THE

DOMINION OF CANADA

FOR THE YEAR ENDED MARCH 31

1912

PART II

WEIGHTS AND MEASURES, GAS AND ELECTRICITY

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST
EXCELLENT MAJESTY
1912

REPORT

OF THE

DEPUTY MINISTER OF INLAND REVENUE

ON THE

INSPECTION OF WEIGHTS AND MEASURES, GAS AND ELECTRICITY

To the Honourable
The Minister of Inland Revenue.

SIR,—I have the honour to submit herewith my annual report on the inspection of weights and measures, gas and electricity, with the usual statements in connection therewith for the fiscal year ended March 31, 1912.

1. The total revenue collected during the year for the inspection of weights and measures, was $107,408.60, as against $98,661.80 collected during the twelve months ended March 31, 1911.

2. The total expenditure was $124,256.83, as against $117,062.15 expended during the year ended March 31, 1911.

3. Appendix 'A' gives a summary statement of the receipts and expenditures of each inspection division.

4. In Appendices 'B,' 'C' and 'D' will be found a detailed statement of weights, measures and weighing machines presented for verification, verified and rejected during the year. The number of all descriptions may be summarily stated as follows:—

—	Presented.	Verified.	Rejected.	Percentage of Rejections.
Weights, Dominion	63,674	63,238	436	·683
Measures of capacity, Dominion	126,369	126,360	9	·007
Lineal measures	8,286	8,247	39	·476
Balances, equal arms	11,895	11,655	240	2·017
" steelyards	4,994	4,891	103	2·062
" platform scales	51,464	50,330	1,134	2·203
Miscellaneous weights	697	694	3	·431
" measures of capacity	9,994	9,963	31	·310
" balances	64,638	64,272	366	·566

INSPECTION OF G

5. The total revenue collected during the twelve months ended March 31, 1912, for the inspection of gas and gas meters, was $51,356.25 as compared with $52,567.25 collected during the year ended March 31, 1911.

6. The total expenses were $45,232.47 as against $38,217.63 expended during the year ended March 31, 1911.

7. Appendix 'E' gives a summary statement of the receipts and expenditures of each gas inspection district.

8. A statement of the illuminating power and purity of gas inspected during the year will be found in Appendix 'F.'

9. The illuminating power, where inspection has been made, has been as follows:—

Places.	Number of tests made.	Number of times below Standard.	Places.	Number of tests made.	Number of times below Standard.
Barrie	12		St. Catharines	12	
Belleville	22	6	St. Thomas	24	
Berlin	12		Toronto	104	1
Brockville	20		Windsor		
Cobourg	12		Woodstock	12	
Cornwall	8		Montreal	104	
Deseronto	4		Quebec	24	
Guelph	12		Sherbrooke	12	
Hamilton	25		St. Hyacinthe	12	
Ingersol	14	4	Fredericton		
Kingston	14		Moncton	12	
Listowel	12		St. John, N.B.	23	
London	106	1	Halifax	12	
Napanee	10		Yarmouth	12	1
Ottawa	104	12	Charlottetown	21	13
Owen Sound	12		Winnipeg	101	45
Peterborough	24		Nanaimo	12	
Port Hope	12		New Westminster	12	
Sarnia			Vancouver	104	94
Stratford	12		Victoria	24	21

The revenue derived from the inspection of electricity was as follows:—

Fees for inspection of meters, &c.		$66,561 20
The expenses of inspection (annual)	$27,566 71	
Expended on standard instruments, and maintenance of equipment	7,738 49	
		35,305 20
Leaving a net revenue of		$31,256 00

Since the year 1896-97 the two services of gas and electricity inspection, which are conducted largely by the same staff of officers, have reached that point at which they have ceased to be a burden upon the general taxpayer, as shown below:—

Years.	Gas and Electricity.	
	Revenue.	Expenditure.
	$ cts.	$ cts.
*1899-1900	35,523 50	26,424 48
1900-01	37,536 57	28,247 20
1901-02	43,663 05	33,328 48
1902-03	49,054 55	36,006 47
1903-04	50,218 75	33,426 15
1904-05	62,561 37	34,774 02
1905-06	76,539 00	38,917 48
1906-07 (nine months)	57,868 18	30,793 84
1907-08	86,552 20	48,831 75
1908-09	92,450 21	54,018 71
1909-10	100,647 20	55,514 14
1910-11	112,150 25	63,385 03
1911-12	117,917 45	80,537 87

* Exclusive of cost of standard instruments.

It will be observed that the reduction of fees in connection with the Gas and Electricity Inspection service made in 1909 and 1911 (referred to in my previous report) has not brought about an equilibrium between receipts and expenditure. Another year should pass before a decision is reached respecting any further reduction. The reduced fees (1911) have only applied to a portion of the fiscal year 1911-12.

Since my last report the Department has suffered a serious loss in the removal, by ill health, of Mr. James Fyfe, Chief Inspector of Weights and Measures.

Mr. Fyfe, while on an official trip in western Ontario, was stricken with paralysis and can no longer undertake the duties he so efficiently performed since his entrance into the service.

The kindred service of weights and measures inspection, it will be observed, earned about 86 per cent of its actual cost, the expenditure as already stated having been $124,256.83 against a revenue of $107,408.60.

I have the honour to be, sir,

Your obedient servant,

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 16, 1912.

APPENDIX A.

STATEMENT of Weights and Measures Expenditures and Revenues for the Fiscal Year ended March 31, 1912.

Inspection Divisions.	Inspectors and Assistants.	Expenditures. Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Totals.	Revenues.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Belleville...	Johnson, Wm. ... Slattery, T..... Kylie, R..... Howson, G. H	3,574 80	10 00	422 50	938 46	337 95	5,283 71	2,529 00
Hamilton...	Sealey, J. C..... Laidman, R. H..... Wheatley, A. E. .... Fitzgerald, E. W.... Marentette, A ..... Robins, S. W. ... .. Clegg, Jos.... .... Brick, J. H.	6,974 61	136 52	.....	1,696 90	78 38	8,886 41	10,230 58
Kingston...	Gallagher, Thos..... Johnston, C. W..... McLean, C. E	2,683 22	.....	.....	914 65	50 35	3,648 22	4,031 70
London. ...	Butler, F. H..... Coughlin, D ..... Hughes, R. A ..... Thomas, J. S. ..... Liddle, D.....	5,245 63	33 00	.....	2,227 18	229 18	7,734 99	11,364 00
Ottawa.....	Macdonald, J. A.... Hinchey, E. H..... Winsor, John. ..... Breen, J ..... Findlay, R..... Hodgins, H. A .. .. Church, G. C. .... . Dugal, G. A.....	5,349 77	174 99	.....	1,564 94	120 76	7,210 46	6,077 62
Toronto	McConvey, J. J..... Milligan, R. J ..... Murdoch, Jas.. ... Smith, J. C..... Wright, R. J..... Cruikshank, J. L.... Lyons, A..... Fallowdown, W. A..	7,133 10	101 38	.....	1,800 25	181 44	9,216 17	13,090 97
	Ontario.....	30,961 13	455 89	422 50	9,142 38	998 06	41,979 96	47,323 87
Montreal...	Archambault, J. E.. Daoust, J. A..... Hébert, J. A. P..... Boudet, E ..... Beaulac, J. H..... Hall, H. C..... Wilson, J. C..... .. Galipeau, J. B. N... Macbeth, W..... Van Antwerp, C. D. Bélanger, S. F.....	7,853 92	1,075 00	1,000 00	2,552 60	171 89	12,653 41	14,938 55

APPENDIX A—*Continued.*

STATEMENT of Weights and Measures Expenditures and Revenues for the Fiscal Year ended March 31, 1912.

Inspection Divisions.	Inspectors and Assistants.	Expenditures. Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Totals.	Revenues.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec.....	Roy, Chs. E.....							
	Guay, A.....							
	Lebel, J. A. W.....							
	Préfontaine, F. H...							
	Knowles, Chs.....							
	Bourget, L. J.....							
	Petit, J. B.....							
	Bugeaud, J. F..	7,567 12	797 00	400 00	1,897 19	239 44	10,900 75	4,958 65
	Caldwell, A. B....							
	Garvin, B.....							
	Beauchamp, L. A...							
	Duchesne, N.....							
	Myles, G.....							
	Desjardins, H.....							
	Lortie, A.....							
St. Hyacinthe...	Morin, J. E.....							
	Thérien, J. F.....							
	Dessert, V.....							
	Desmarais, A.....							
	Tomlinson, W. M...	4,338 11	1,459 42	.....	1,475 34	160 12	7,432 99	7,568 45
	Richer, A.....							
	Fournier, L. A.....							
	Boisvert, F.....							
Three Rivers.	Gravel, A. I.....							
	Lessard, A.....	1,699 62	18 03	.....	813 45	46 17	2,577 27	1,728 45
	Bolduc, E.....							
	Quebec.....	21,458 77	3,349 45	1,400 00	6,738 58	617 62	33,564 42	29,194 10
St. John, N.B....	Barry, Jas.....							
	Bernier, J. A.....							
	Le Blanc, F. X.....	3,658 14	241 93	.....	391 57	67 18	4,358 82	2,440 75
	White, H. E.....							
	Limerick, A. K..							
	Le Blanc, J. O.....							
Cape Breton	Lawrence, G. C.....	1,041 66	.....	70 50	580 84	83 28	1,776 28	593 71
Halifax.....	Cochrane, J. A.....							
	O'Brien, Wm.....							
	Waugh, R.....	1,717 62	921 61	507 36	514 61	142 01	3,803 21	1,107 55
	Sargent, F. H.....							
	Dillon, D. H.....							
Pictou.....	Dustan, W. M.....							
	Chisholm, J. J.....	1,991 58	56 00	.....	296 08	108 61	2,452 27	903 34
	Campbell, D. A.....							
	Nova Scotia.....	4,750 86	977 61	577 86	1,391 53	333 90	8,031 76	2,604 60
Charlottetown, P.E.I.	Davy, E.....	1,841 58	15 00	.....	141 31	70 41	2,068 30	414 00
	Hughes, H.....							

APPENDIX A—*Continued*

STATEMENT of Weights and Measures Expenditures and Revenues for the Fiscal Year ended March 31, 1912.

Inspection Divisions.	Inspection and Assistants	Expenditures.						Revenues.
		Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Winnipeg, Man.. ...	Walton, Geo..... Gilby, W. F..... McKay, R ..... Spicer, H. .... Grant, C. D..... Buote, P. H..... McLean, D. J	5,341 48	233 32	.....	2,645 27	161 42	8.381 49	9,623 30
Saskatoon, Sask.....	Grant, W. M.. ... . Ross, J. E. W..... Humphries, J. H.... McCarter, D. E.....	1,878 44	876 58	.....	3,316 81	95 65	6,167 48	6.021 39
Calgary, Alta.....	Costello, J. W..... Cook, John ..... Wilson, W. A.....	2,999 88	....	.....	2,629 85	116 45	5,746 18	4,615 15
Nelson.....	Parker, Thos..... ...	1,241 60	.....	.....	1,233 95	48 00	2,523 55	1,061 35
Vancouver..	Marshall. R..... Shaw, John..... Harris, W. H..... Dutton, A. H.	3.541 51	.....	. .....	223 20	416 20	4,180 91	2,486 9
	British Columbia...	4,783 11	.....	.....	1,457 15	464 20	6,704 46	3,548 25
Dawson, Yukon ..	McDonald, J. F.....	1,000 00	.....	.....	12 75	.. ....	1,012 75	4 50

APPENDIX A—*Concluded.*

STATEMENT of Weights and Measures Expenditures and Revenues for the Fiscal Year ended March 31, 1912.

RECAPITULATION.

—	Expenditures.						Revenues.
	Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario	30,961 13	455 89	422 50	9,142 38	998 06	41,979 96	47,323 87
Quebec	21,458 77	3,349 48	1,400 00	6,738 58	617 62	33,564 42	29,194 10
New Brunswick	3,658 14	241 93	.....	391 57	67 18	4,358 82	2,440 75
Nova Scotia	4,750 86	977 61	577 86	1,391 53	333 90	8,031 76	2.604 60
Prince Edward Island	1,841 58	15 06	.....	141 31	70 41	2,068 30	414 00
Manitoba	5,341 48	233 32	.....	2,645 27	161 42	8,381 49	9.623 30
Saskatchewan	1,878 44	876 58	.....	3,316 81	95 65	6,167 48	6,021 39
Alberta	2,999 88	.....	.....	2,629 85	116 45	5,746 18	4,615 15
British Columbia	4,783 11	.....	.....	1,457 15	464 20	6,704 46	3,548 25
Yukon	1,000 00	.....	.....	12 75	.....	1,012 75	4 50
Testing Milk Glasses	.....	.....	.....	.....	.....	.....	1,896 10
Chief Inspector	.....	.....	.....	296 35	68 99	365 34	.....
General Contingencies	.....	.....	.....	.....	2,203 22	2,203 22	.....
Printing	.....	.....	.....	.....	1,594 96	1,594 96	.....
Stationery	.....	.....	.....	.....	567 68	567 68	.....
Lithographing	.....	.....	.....	.....	5 50	5 50	.....
Provisional Allowances	.....	.....	.....	.....	1,291 44	1,291 44	.....
International Bureau of Weights and Measures	.....	.....	.....	.....	209 37	209 37	.....
Grand Totals	78,673 39	6,149 78	2,400 36	28,163 55	8,866 05	124,253 13	107,686 01

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1911.

W. J. GERALD,
Deputy Minister.

APPENDIX B

APPENDIX

RETURN of Weights and Measures inspected during the Fiscal Year ended March, 31, each Division, for each Province,

Inspection Office.	Weights.									Measures of Capacity.					
	Dominion.			Troy.			Miscellaneous.			Dominion.			Miscellaneous.		
	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.
Belleville	947	947	....	....	....	..	....	..	....	873	873	..	92	92	..
Hamilton	7,549	7,549	..	39	39	..	23	23	....	8,485	8,485	..	768	754	14
Kingston	1,697	1,697	....	....	....	..	4	4	....	3,596	3,596	..	86	86	..
London	4,164	4,162	2	....	....	..	23	23	....	28,970	28,970	..	1	1	..
Ottawa	6,379	6,379	....	....	....	..	6	6	....	1,704	1,704	..	350	350	..
Toronto	7,610	7,495	115	....	....	..	77	77	....	28,599	28,599	..	3,022	3,016	6
Ontario	28,346	28,229	117	39	39	..	133	133	....	72,227	72,227	.	4,319	4,299	20
Montreal	10,866	10,866	....	105	105	..	132	132	....	28,713	28,713	..	1,310	1,310	..
Quebec	7,153	6,864	289	....	....	..	205	202	3	7,187	7,180	7	150	150	..
St. Hyacinthe	6,015	6,015	....	....	....	.	88	88	....	1,243	1,243	..	141	141	..
Three Rivers	1,894	1,865	29	....	....	..	....	....	....	1,934	1,934	..	34	34	..
Quebec	25,928	25,610	318	105	105	..	425	422	3	39,077	39,070	7	1,635	1,635	..
St. John, N.B.	1,981	1,981	.	....	....	..	14	14	....	3,756	3,756	..	2,455	2,454	1
Cape Breton	175	175	....	....	....	..	8	8	....	232	232	.	44	44	..
Halifax	909	908	1	....	....	..	15	15	....	437	437	..	413	404	9
Pictou	547	547	....	....	....	..	5	5	....	618	618	..	119	119	..
Nova Scotia	1,631	1,630	1	....	....	..	28	28	....	1,287	1,287	..	576	567	9
Charlottetown, P.E.I.	356	356	..	....	....	..	....	....	....	195	195	..	24	24	..
Winnipeg, Man.	2,909	2,909	....	..	....	.	69	69	....	9,084	9,084	..	634	633	1
Saskatoon, Sask.	903	903	....	....	....	..	1	1	....	393	393	..	230	230	..
Calgary, Alta.	576	576	....	....	....	..	1	1	....	205	203	2	106	106	..
Nelson	327	327	....	....	....	..	1	1	..	127	127	..	14	14	..
Vancouver	717	717	..	....	....	.	25	25	....	18	18	..	1	1	..
British Columbia	1,044	1,044	..	....	..	..	26	26	....	145	145	..	15	15	..
Dawson, Yukon	....	..	..	..	....	..	....	....	....	.....	.....	..	....	.....	..
Grand Total	63,674	63,238	436	144	144	.	697	694	3	126,369	126,360	9	9,994	9,963	31

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

B.

1912, showing the Total Number brought for Verification, Verified and Rejected for and for the whole Dominion.

Measures of length.			Balances, &c.											
			Equal Armed.			Steelyards.			Platform Scales, Weigh Bridgdes, &c.			Miscellaneous.		
Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.
33	33	....	255	255	...	25	25	....	1,287	1,287	.....	461	461	.. ..
1,229	1,229	....	1,617	1,472	145	1,996	1,957	39	5,990	5,373	617	3,166	3,100	66
370	370	....	343	343	....	38	38	...	2,448	2,448	...	1,052	1,052	.....
2,443	2,443	....	900	896	4	213	209	4	4,885	4,768	117	5,433	5,419	14
214	214	....	944	944	. .	2	2	....	2,656	2,656	.....	4,302	4,302	.....
741	741	....	1,625	1,562	64	467	426	41	5,533	5,362	171	11,761	11,688	73
5,030	5,030	...	5,685	5,472	213	2,741	2,657	84	22,799	21,894	905	26,175	26,022	153
1,057	1,055	2	2,140	2,136	4	1,038	1,033	5	7,012	6,936	76	13,893	13,889	4
1,124	1,087	37	1,018	1,004	14	330	320	10	2,357	2,326	31	1,271	1,270	1
186	186	....	903	903	....	431	430	1	7,648	7,638	10	522	521	1
22	22	....	343	340	3	33	33	....	1,203	1,196	7	87	87	.....
2,389	2,350	39	4,404	4.383	21	1,832	1,816	16	18,220	18,096	124	15,773	15,767	6
16	16	....	438	436	2	46	46	....	898	892	6	1,792	1,792	.....
50	50	...	41	41	....	7	7	...	222	222	....	178	178	.....
4	4	....	240	238	2	24	24	....	536	518	18	522	522	.....
51	51	...	110	110	....	24	24	...	343	343	.....	499	499	. ...
105	105	....	391	389	2	55	55	....	1,101	1,083	18	1,199	1,199	.....
.....	... ..	....	80	80	....	9	9	....	239	239	....	424	424	.....
605	605	. .	451	449	2	79	78	1	2,892	2,839	53	12,330	12,139	191
45	45	....	145	145	....	8	8	....	2,490	2,484	6	903	901	2
51	51	....	90	90	....	63	61	2	1,577	1,555	22	1,428	1,416	12
45	45	....	67	67	...	63	63	...	510	510	.....	211	209	2
.....	....	....	144	144	....	98	98	....	734	734	.....	4,403	4,403	.....
45	45	....	211	211	....	161	161	....	1,244	1,244	...	4,614	4,612	2
.... .	.....	....	.....	.....	....	.....	.....	....	4	4	....	.....	.....	.....
8,286	8,247	39	11,895	11,655	240	4,994	4,891	103	51,464	50,330	1,134	64,638	64,272	366

W. J. GERALD,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Weights and Lineal Measures of each

March 31,

Dominion

Avoir

Inspection Division.	60 lbs.	50 lbs.	30 lbs.	25 lbs.	20 lbs.	10 lbs.	7 lbs.	5 lbs.	4 lbs.	3 lbs.	2 lbs.	1 lb.	8 ozs.	4 ozs.	2 ozs.
Belleville	..	8	8	..	....	....	..	24	77	156	229	217	53	47	48
Hamilton	..	262	....	..	....	23	..	307	187	1,321	1,950	1,515	425	391	377
Kingston	..	2	1	..	3	19	..	71	92	162	390	358	150	135	116
London	..	....	3	..	2	8	..	286	357	729	923	671	296	279	263
Ottawa	..	176	12	..	....	6	..	106	86	215	465	439	814	775	647
Toronto	..	156	92	2	3	315	..	964	658	613	2,090	1,133	361	318	322
Ontario	..	604	116	2	8	372	..	1,758	1,457	3,196	6,047	4,333	2,099	1,945	1,773
Montreal	44	384	43	..	13	204	..	879	578	895	1,971	1,764	1,173	997	839
Quebec	..	26	4	..	7	59	..	395	539	565	1,080	1,053	950	910	817
St. Hyacinthe	..	1,018	2	6	11	45	..	388	208	1,073	1,224	683	416	289	327
Three Rivers	..	..	....	..	....	5	..	145	73	320	343	304	227	207	155
Quebec	44	1,428	49	6	31	313	..	1,807	1,398	2853	4,618	3,804	2,766	2,403	2,138
St. John, N.B.	..	....	....	..	....	2	..	82	121	166	487	434	235	179	138
Cape Breton	..	4	1	..	1	1	..	7	6	28	55	40	11	7	6
Halifax	..	34	....	..	1	6	..	26	62	70	291	205	68	55	51
Pictou	..	7	1	..	....	5	..	19	26	42	130	112	59	42	38
Nova Scotia	..	45	2	..	2	12	..	52	94	140	476	357	138	104	95
Charlottown, P. E. I.	..	....	....	..	....	1	..	5	32	30	124	80	20	19	16
Winnipeg, Man.	..	80	5	2	32	52	..	101	128	147	564	486	198	192	190
Saskatoon, Sask.	..	8	....	..	3	6	..	12	27	47	169	146	80	79	79
Calgary, Alta.	..	2	11	..	2	18	..	36	36	31	143	108	38	27	27
Nelson	..	....	....	..	....	2	..	4	13	28	80	69	25	22	22
Vancouver	..	26	12	17	22	10	..	22	32	65	141	106	51	44	43
British Columbia	..	26	12	17	22	12	..	26	45	93	221	175	76	66	65
Dawson, Yukon	..	....	....	..	....	....	..	....	....	..	....	....	....	....	....
Grand Totals	44	2,193	195	27	100	788	..	3,879	3,338	7,703	12,840	9,923	5,650	5,014	4,521

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

SESSIONAL PAPER No. 13

C.

Denomination presented in each Inspection Division during the Fiscal Year ended 1912.

Weights.									Lineal Measures.											
dupois.																				
1 oz.	8 drs.	4 drs.	2 drs.	1 dr.	½ dr.	Total Number.	Troy Weights.	Miscellaneous Weights.	6 feet.	5 feet.	1 yard.	½ yard.	2 feet.	1 foot.	½ foot.	100 feet chains.	66 feet chains.	Tape of riband.	Total number.	Miscellaneous measures.
46	26	5	1	1	1	947	...	....	....	....	33	..	..	..	..	..	..	..	33	....
380	273	100	29	9	..	7,549	39	23	605	....	624	..	..	..	..	..	..	..	1,229	....
93	63	31	8	2	1	1,697	....	4	...	....	370	..	..	..	..	..	..	..	370	....
192	102	34	2	16	....	4,164	...	23	....	....	2,443	..	..	..	..	..	..	..	2,443	....
714	662	1,232	13	10	7	6,379	...	6	....	....	214	..	..	..	..	..	..	..	214	....
250	170	74	36	53	....	7,610	....	77	....	....	741	..	..	..	..	..	..	..	741	...
1,675	1,296	1,476	89	91	9	28,346	39	133	605	..	4,425	..	..	..	..	..	..	..	5,030	....
555	285	108	68	66	....	10,866	105	132	....	....	1,057	..	..	..	..	..	..	..	1,057	....
546	176	19	5	2	....	7,153	....	205	....	....	1,124	..	..	..	..	..	..	..	1,124	....
234	46	24	15	5	1	6,015	....	88	....	....	186	..	..	..	..	..	..	..	186	....
90	22	2	1	....	....	1,894	....	....	....	....	22	..	..	..	..	..	..	..	22	....
1,425	529	153	89	73	1	25,928	105	425	....	....	2,389	..	..	..	..	..	..	..	2,389	...
85	35	16	1	....	....	1,981	....	14	....	...	16	..	..	..	..	..	..	..	16	....
6	2	....	....	....	....	175	...	8	....	....	50	..	..	..	..	..	..	..	50	....
32	5	3	....	....	....	909	....	15	....	....	4	..	..	..	..	..	..	..	4	....
34	17	11	4	....	....	547	....	5	....	....	51	..	..	..	..	..	..	..	51	....
72	24	14	4	....	....	1,631	...	28	....	....	105	..	..	..	..	..	..	..	105	....
15	8	4	1	1	....	356	...	....	....	....	....	..	..	..	..	..	..	..	....	...
185	166	139	120	121	1	2,909	...	69	....	2	603	..	..	..	..	..	..	..	605	..
84	66	58	30	15	3	903	..	1	....	....	45	..	..	..	..	..	..	..	45	....
24	22	21	10	20	....	576	....	1	....	....	51	....	..	..	..	..	..	..	51	....
22	19	15	5	1	....	327	....	1	....	....	45	..	..	..	..	..	..	..	45	...
41	33	30	18	2	2	717	....	25	..	....	....	..	..	..	..	..	..	..	....	....
63	52	45	23	3	2	1,044	....	26	....	....	45	..	..	..	..	..	..	..	45	....
....	....	....	....	....	....	....	....	....	....	....	....	..	..	..	..	..	..	..	....	....
3,628	2,198	1,926	367	324	16	63,674	144	697	605	2	7,679	..	..	..	..	..	..	..	8,286	....

W. J. GERALD,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Weights and Lineal Measures of each March

Inspection Division.	Dominion Avoir-														
	60 lbs.	50 lbs.	30 lbs.	25 lbs.	25 lbs.	10 lbs.	7 lbs.	5 lbs.	4 lbs.	3 lbs.	2 lbs.	1 lb.	8 ozs.	4 ozs.	2 ozs.
Belleville	..	8	8	..	....	....	..	24	77	156	229	217	53	47	48
Hamilton	..	262	..	..	....	23	..	307	187	1,321	1,950	1,515	425	391	377
Kingston	..	2	1	..	3	19	..	71	92	162	390	358	150	135	116
London	..	.....	3	..	2	9	..	286	357	729	923	671	296	278	262
Ottawa	..	176	12	..	....	6	..	106	86	215	465	439	814	775	647
Toronto	..	156	92	2	3	312	..	958	655	604	2,067	1,113	350	308	307
Ontario	..	604	116	2	8	369	..	1,752	1,454	3,187	6,024	4,313	2,088	1,934	1,757
Montreal	44	384	43	..	12	204	..	879	578	895	1,971	1,764	1,173	997	839
Quebec	..	26	4	..	7	57	..	380	508	543	1,022	996	912	878	792
St. Hyacinthe	..	1,018	2	6	11	45	..	388	208	1,073	1,224	683	416	289	327
Three Rivers	..	.....	....	..	...	5	..	143	67	317	337	300	224	204	154
Quebec	44	1,428	49	6	31	311	..	1,790	1,361	2,828	4.554	3,743	2,725	2,368	2,112
St. John, N.B	..	..	....	..	....	2	..	82	121	166	487	434	235	179	138
Cape Breton	..	4	1	..	1	1	..	7	6	28	55	40	11	7	6
Halifax	..	33	..	..	1	6	..	26	62	70	291	205	68	55	51
Pictou	..	7	1	..	..	5	..	19	26	42	130	112	59	42	38
Nova Scotia	..	44	2	..	2	12	12	52	94	140	476	357	138	104	95
Charlottetown, P.E.I	..	...	....	..	....	1	..	5	32	30	124	80	20	19	16
Winnipeg, Man.	..	80	5	2	32	52	..	101	128	147	564	486	198	192	190
Saskatoon, Sask.	..	8	....	..	3	6	..	12	27	47	160	146	80	79	79
Calgary, Alta.	..	2	11	..	2	18	..	36	36	31	143	108	38	27	27
Nelson	..	....	....	..	....	2	..	4	13	28	80	69	25	22	22
Vancouver	..	26	12	17	22	10	..	22	32	65	141	106	51	44	43
British Columbia	..	26	12	17	22	12	..	26	45	93	221	175	76	66	65
Dawson, Yukon	..	....	....	..	....	....	..	....	....	....	....	....	....	....	....
Grand totals	44	2,192	195	27	100	783	..	3,856	3,298	6,669	12,753	9,842	5,598	4,968	4,479

INLAND REVENUE DEPARTMENT.
OTTAWA, June 1, 1912.

C—*Continued.*

Denomination verified in each Inspection Division during the Fiscal Year ended 31, 1912.

Weights.									Lineal Measures.										
dupois.																			
1 oz.	8 drs.	4 drs.	2 drs.	1 dr.	½ dr.	Total Number	Troy Weights.	Miscellaneous Weights.	6 feet.	5 feet.	1 yard.	½ yard.	2 feet.	1 foot.	½ foot.	100 feet chains.	66 feet chains.	Tape or riband.	Total number.	Miscellaneous measures.
46	26	5	1	1	1	947	....	....	....	....	33	....	....	....	....	....	....	....	33	...
380	273	100	29	9	....	7,549	39	23	605	....	624	....	....	....	....	....	....	....	1,229	....
93	63	31	8	2	1	1,697	...	4	....	...	370	....	....	....	....	....	....	....	370	....
192	102	34	2	16	....	4,162	...	23	....	....	2,443	....	....	....	....	....	....	....	2,443	....
714	662	1,232	13	10	7	6,379	..	6	..	....	214	....	....	....	....	....	....	....	214	....
240	167	73	35	53	....	7,495	....	77	....	....	741	....	....	....	....	....	....	....	741	....
1,665	1,293	1,475	88	91	9	28,229	39	133	605	.. .	4,425	....	....	....	....	....	....	....	5,030	....
555	285	108	68	66	....	10,866	105	132	....	...	1,055	....	....	....	....	....	....	....	1,055	....
537	176	19	5	2	..	6,864	....	202	....	....	1,087	....	....	....	....	....	....	....	1,087	....
234	46	24	15	5	1	6,015	....	88	....	....	186	....	....	....	....	....	....	....	186	....
89	22	2	1	...	....	1,865	....	.....	.	....	22	....	....	....	.	....	....	....	22	....
1,415	529	153	89	73	1	25,610	105	422	....	....	2,350	....	....	....	....	....	....	....	2,350	....
85	35	16	1	....	....	1,981	....	14	....	....	16	....	....	....	....	....	....	....	16	....
6	2	....	....	....	....	175	....	8	...	....	50	....	....	....	....	....	....	....	50	....
32	5	3	...	....	....	908	....	15	....	...	4	....	....	....	....	....	....	....	4	....
34	17	11	4	....	....	547	....	5	....	....	51	....	....	....	....	....	....	....	51	. ..
72	24	14	4	....	....	1,630	....	28	.. .	....	105	....	....	....	....	....	....	....	105	...
15	8	4	1	1	....	356	....	.....	....	..	.....	...	....	....	....	....	....	....	.....	....
185	166	139	120	121	1	2,909	....	69	....	....	605	....	....	....	....	....	....	....	605	....
84	66	58	30	15	3	903	...	1	....	....	45	....	....	....	....	....	....	....	45	....
24	22	21	10	20	....	576	....	1	....	....	51	....	....	....	....	....	....	....	51	....
22	19	15	5	1	....	327	....	1	....	....	45	....	....	....	....	....	....	....	45	....
41	33	30	18	2	2	717	....	25	....	....	.....	...	....	....	....	....	....	....	.....	....
63	52	45	23	3	2	1,044	....	26	....	....	45	....	....	....	....	....	....	....	45	....
... ..	....	.....	..	...	....	... .	....	.....	....	....	.....	....	....	....	....	....	....	....	.....	....
3,608	2,195	1,925	366	324	16	63,238	144	694	605	...	7,642	....	....	....	....	....	....	....	8,247	....

W. J. GERALD,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Weights and Lineal Measures of each March 31, 1912

Inspection Division.	Dominion Avoir															
	60 lbs.	50 lbs.	30 lbs.	25 lbs.	20 lbs.	10 lbs.	7 lbs.	5 lbs.	4 lbs.	3 lbs.	2 lbs.	1 lbs.	8 ozs.	4 ozs.	2 ozs.
Belleville															
Hamilton															
Kingston															
London														1	1
Ottawa															
Toronto						3		6	3	9	23	20	11	10	15
Ontario						3		6	3	9	23	20	11	11	16
Montreal															
Quebec						2		15	31	22	58	57	38	32	25
St. Hyacinthe															
Three Rivers								2	6	3	6	4	3	3	1
Quebec						2		17	37	25	64	61	41	35	26
St. John, N.B.															
Cape Breton															
Halifax	1														
Pictou															
Nova Scotia	1														
Charlottetown, P.E.I															
Winnipeg, Man.															
Saskatoon, Sask															
Calgary, Alta.															
Nelson															
Vancouver															
British Columbia															
Dawson, Yukon															
Grand Total	1					5		23	40	34	87	81	52	46	42

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

SESSIONAL PAPER No. 13

C—*Concluded.*

Denomination Rejected in each Inspection Division during the Fiscal Year ended —*Concluded.*

Weights.							Troy Weights.	Miscellaneous Weights.	Lineal Measures.										Miscellaneous Measures.
dupois.																			
1 oz.	8 drs.	4 drs.	2 drs.	1 drs.	½ drs.	Total Number.			6 feet.	5 feet.	1 yard.	½ yard.	2 feet.	1 foot.	½ foot.	100 feet chains.	60 feet chains.	Tape or riband.	Total number.	
						2														
10	3	1	1			115														
10	3	1	1			117														
											2								2	
9						289		3			37								37	
1						29														
10						318		3			39								39	
						1														
						1														
20	3	1	1			436		3			39								39	

W. J. GERALD,
Deputy Minister.

RETURN showing the Number of Dominion Measures of Capacity, Balances
Division, during the Fiscal

Inspection Division.	Measures of Capacity.											
	Dominion.											
	Bushel.	½ bushel.	Peck.	Gallon.	½ gallon.	Quart.	Pint.	½ pint.	Gill.	½ gill.	Total number	Miscellaneous.
Belleville	2	12	34	199	257	258	148	13	...	...	873	92
Hamilton	202	227	450	1,303	1,668	2,700	1,568	359	7	1	8,485	768
Kingston	22	178	226	467	873	1,197	583	49	1	...	3,596	86
London	253	559	675	3,224	4,525	9,309	8,386	2,069	...	...	28,970	1
Ottawa	...	1	17	296	494	528	305	57	6	...	1,704	350
Toronto	169	892	1,640	4,972	4,183	9,036	5,342	2,362	3	...	28,599	3,022
Ontario	648	1,869	3,042	10,461	11,950	23,028	16,332	4,879	17	1	72,227	4,319
Montreal	...	1,298	1,752	5,025	4,822	7,581	5,974	2,147	114	...	28,713	1,310
Quebec	52	222	411	1,165	1,874	1,877	1,168	379	57	2	7,187	150
St. Hyacinthe	...	21	44	187	365	337	183	91	15	...	1,243	141
Three Rivers	...	15	18	321	564	576	312	126	8	...	1,934	34
Quebec	52	1,556	2,225	6,698	7,625	10,371	7,637	2,737	174	2	39,077	1,635
St. John, N.B.	...	316	302	665	986	726	661	98	2	...	3,756	2,455
Cape Breton	1	...	...	34	99	52	27	12	...	...	232	44
Halifax	...	7	4	92	175	117	35	7	...	...	437	413
Pictou	...	11	12	121	207	174	92	1	...	...	618	119
Nova Scotia	1	18	16	247	481	350	154	20	...	...	1,287	576
Charlottetown, P.E.I.	...	...	1	10	35	89	53	7	...	...	195	24
Winnipeg, Man.	144	...	...	1,936	2,099	2,331	2,063	509	1	1	9,084	634
Saskatoon, Sask.	...	...	...	129	134	74	47	9	...	...	393	230
Calgary, Alta.	1	...	...	88	73	32	10	1	...	...	205	106
Nelson	...	...	...	23	38	46	19	1	...	...	127	14
Vancouver	...	...	...	...	...	18	...	...	...	...	18	1
British Columbia	...	...	...	23	38	64	19	1	...	...	145	15
Dawson, Yukon	...	...	...	...	...	...	...	...	...	...	...	...
Grand totals	846	3,759	5,586	20,257	23,421	37,065	26,976	8,261	194	4	126,369	9,994

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

DIX D.

and Weighing Machines of each Denomination presented in each Inspection Year ended March 31, 1912.

Balances.

With equal arms.				Steelyards with divided arms.				Weigh Bridges or Platform Scales.							
5 lbs and under.	6 lbs to 50 lbs.	51 lbs. to 100 lbs.	101 lbs. and upwards.	500 lbs and under.	501 lbs to 1,000 lbs.	1,001 lbs to 2,000 lbs.	2,001 lbs. and upwards.	250 lbs. and under.	251 lbs. to 500 lbs.	501 lbs. to 2,000 lbs.	2,001 lbs. to 4,000 lbs.	4,001 lbs. to 6,000 lbs.	6,001 lbs. and upwards.	Total.	Miscellaneous.
101	130	...	24	24	1	...	...	384	80	454	130	44	195	1,567	461
447	1,154	...	16	1,980	12	4	...	2,955	169	2,193	281	71	321	9,603	3,166
143	199	...	1	38	...	...	...	544	166	1,472	65	33	168	2,829	1,052
464	435	...	1	193	19	1	...	866	101	2,818	260	76	764	5,998	5,433
697	244	3	...	2	...	...	...	651	108	1,680	68	39	110	3,602	4,302
566	995	...	65	434	14	13	6	3,782	77	1,094	190	77	313	7,626	11,761
2,418	3,157	3	107	2,671	46	18	6	9,182	701	9,711	994	340	1,871	31,225	26,175
646	1,451	3	40	1,028	8	...	2	2,089	1,526	2,681	237	143	336	10,190	13,893
211	793	1	13	326	1	3	...	846	625	702	75	30	79	3,705	1,271
325	577	1	...	395	15	17	4	4,535	756	1,731	177	170	279	8,982	522
50	293	...	...	33	...	...	...	366	354	413	17	23	30	1,579	87
1,232	3,114	5	53	1,782	24	20	6	7,836	3,261	5,527	506	366	724	24,456	15,773
138	300	...	...	39	5	2	...	358	168	255	30	10	77	1,382	1,792
8	31	...	2	7	...	...	...	93	21	35	2	6	65	270	178
85	153	...	2	17	4	...	3	268	52	127	15	12	62	800	522
24	84	...	2	23	...	1	24	124	58	88	14	17	42	477	499
117	268	...	6	47	4	1	27	485	131	250	31	35	169	1,547	1,199
19	61	...	...	9	...	...	...	69	36	100	7	11	16	328	424
139	304	...	8	56	22	...	1	674	23	722	157	495	821	3,422	12,330
101	44	...	...	6	1	1	...	388	12	316	51	611	1,112	2,643	903
46	41	2	1	37	13	13	...	370	20	475	41	128	543	1,730	1,428
32	35	...	...	39	5	18	1	230	11	180	18	6	65	640	211
45	90	...	9	43	8	39	8	264	25	341	31	8	65	976	4,403
77	125	...	9	82	13	57	9	494	36	521	49	14	130	1,616	4,614
...	...	...	...	...	...	...	...	2	1	1	...	...	...	4	...
4,287	7,414	10	184	4,729	128	112	49	19,858	4,389	17,878	1,866	2,010	5,463	68,353	64,638

W. J. GERALD,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Measures of Capacity, Balances and during the Fiscal Year ended

Inspection Division.	Measures of Capacity. Dominion. Bushel.	½ bushel.	Peck.	Gallon.	½ gallon.	Quart.	Pint.	½ pint.	Gill.	¼ Gill.	Total Number.	Miscellaneous.
	2	12	34	199	207	258	148	13	..	..	873	92
Belleville	202	227	450	1,303	1,668	2,700	1,568	359	7	1	8,485	754
Hamilton	22	178	226	467	873	1,197	583	49	1	....	3,596	86
Kingston	253	559	675	3,224	4,525	9,309	8,386	2,039	....	....	28,970	1
London	...	1	17	296	494	528	305	57	6	....	1,704	350
Ottawa	169	892	1,640	4,972	4,183	9,036	5,342	2,362	3	....	28,599	3,016
Ontario	648	1,869	3,042	10,461	11,950	23,028	16,332	4,879	17	1	72,227	4,299
Montreal	....	1,298	1,752	5,025	4,822	7,581	5,974	2,147	114	....	28,713	1,310
Quebec	52	222	411	1,165	1,870	1,876	1,167	378	37	2	7,180	150
St. Hyacinthe	....	21	44	187	365	337	183	91	15	....	1,243	141
Three Rivers	...	15	18	321	564	576	312	120	8	....	1,934	34
Quebec	52	1,556	2,225	6,698	7,621	10,370	7,636	2,736	174	2	39,070	1,635
St. John, N.B.	....	316	302	665	986	726	661	98	2	....	3,756	2,454
Cape Breton	1	....	.....	34	99	59	27	12	..	....	232	44
Halifax	....	7	4	92	175	117	35	7	....	....	437	404
Pictou	...	11	12	121	207	174	92	1	....	....	618	119
Nova Scotia	1	18	16	247	481	350	154	20	....	....	1,287	567
Charlottown, P.E.I.	....	.....	1	10	35	89	53	7	....	....	195	24
Winnipeg, Man.	144	....	.....	1,936	2,099	2,331	2,063	509	1	1	9,084	633
Saskatoon, Sask.	....	....	.....	129	134	74	47	9	....	....	393	230
Calgary, Alta.	1	....	.....	87	72	32	10	1	....	....	203	106
Nelson	....	....	....	23	38	46	19	1	....	....	127	14
Vancouver	....	....	.....	....	.....	....	18	....	....	....	18	1
British Columbia	....	....	.....	23	38	46	37	1	....	....	145	15
Dawson, Yukon	....	....	.....	.....	.....	.....	.....	....	....	....	.....	....
Grand totals	846	3,759	5,586	20,256	23,416	37,046	26,993	8,260	194	4	126,360	9,963

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

D—*Continued.*

Weighing Machines of each Denomination Verified, in each Inspection Division March 31, 1912—*Continued.*

Balances														
With Equal Arms.				Steelyards with Divided Arms.				Weigh Bridges or Platform Scales.						
5 lbs. and under	6 lbs. to 50 lbs.	51 lbs. to 100 lbs.	101 lbs. and upwards.	500 lbs. and under.	501 lbs to 1,000 lbs.	1,001 lbs. to 2,000 lbs.	2,001 lbs. and upwards.	220 lbs. and under.	251 lbs. to 500 lbs.	501 lbs. to 2,000 lbs.	2,001 lbs. to 4,000 lbs.	4,001 lbs. to 6,000 lbs.	6,001 lbs. and upwards.	Total Number.	Miscellaneous.
101	139	....	24	24	1	....	...	384	80	454	130	44	195	1,567	461
420	1,036	....	16	1,942	11	4	....	2,778	148	1,922	230	53	242	8,802	3,100
143	199	....	1	38	...	....	....	544	166	1,472	65	33	168	2,829	1,052
463	432	....	1	190	18	1	....	851	96	2,761	255	71	734	5,873	5,419
697	244	3	....	2	....	....	....	651	168	1,680	68	39	110	3,602	4,302
551	946	....	65	399	11	11	5	3,724	70	1,016	182	73	297	7,350	11,688
2,375	2,987	3	107	2,595	41	16	5	8,952	668	9,305	930	313	1,746	30,023	26,022
645	1,448	3	40	1,023	8	....	2	2,080	1,512	2,650	229	139	326	10,105	13,889
208	782	1	13	317	1	2	....	839	618	692	70	29	78	3,650	1,270
325	577	1	...	394	15	17	4	4,535	752	1,729	176	169	277	8,971	521
50	290	..	..	33	....	....	....	366	353	410	17	21	29	1,569	87
1,228	3,097	5	53	1,767	24	19	6	7,820	3,235	5,481	492	358	710	24,295	15,767
137	299	..	....	39	5	2	...	357	166	252	30	10	77	1,374	1,792
8	31	....	2	7	...	....	....	93	21	35	2	6	65	270	178
84	152	....	2	17	4	...	3	266	52	117	13	12	58	780	522
24	84	....	2	23	....	1	....	124	58	88	14	17	42	477	499
116	267	....	6	47	4	1	3	483	131	240	29	35	165	1,527	1,199
19	61	..	....	9	....	....	....	69	36	100	7	11	16	328	424
139	302	..	8	55	22	..	1	664	21	711	150	491	802	3,366	12,139
101	44	....	....	6	1	1	...	388	12	316	51	609	1,108	2,637	901
46	41	2	1	35	13	13	....	364	20	470	41	127	533	1,706	1,416
32	35	....	....	39	5	18	1	230	11	180	18	6	65	640	209
45	90	....	9	43	8	39	8	264	25	341	31	8	65	976	4,403
77	125	....	9	82	13	57	9	494	36	521	49	14	130	1,616	4,612
.....	...	....	....	....	....	....	....	2	1	1	...	.....	.....	4	... ...
4,238	7,223	10	184	4,635	123	109	24	19,573	4,326	17,397	1,779	1,968	5,287	66,876	64,272

W. J. GERALD,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion measures of Capacity, Balances and during the Fiscal Year ended

Inspection Division.	Measures of Capacity. Dominion.											
	Bushel.	½ bushel.	Peck.	Gallon.	½ gallon.	Quart.	Pint.	½ pint.	Gill.	½ gill.	Total number.	Miscellaneous.
Belleville												
Hamilton												14
Kingston												
London												
Ottawa												
Toronto												6
Ontario												20
Montreal												
Quebec					4	1	1	1			7	
St. Hyacinthe												
Three Rivers												
Quebec					4	1	1	1			7	
St. John, N.B.												
Cape Breton												
Halifax												
Pictou												
Nova Scotia												
Charlottetown, P.E.I.												
Winnipeg, Man.												
Saskatoon, Sask.												
Calgary, Alta.				1	1						2	
Nelson												
Vancouver												
British Columbia												
Dawson, Yukon												
Grand totals				1	5	1	1	1			9	21

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

SESSIONAL PAPER No. 13

D—*Continued.*

Weighing Machines of each Denomination, Rejected, in each Inspection Division March 31, 1912—*Continued.*

Balances.															
With Equal Arms.				Steelyards with Divided Arms.				Weigh Bridges or Platform Scales.							
5 lbs. and under	6 lbs. to 50 lbs.	51 lbs. to 100 lbs.	101 lbs. and upwards.	500 lbs. and under.	501 lbs. to 1,000 lbs.	1,001 lbs. to 2,000 lbs.	2,001 lbs. and upwards.	250 lbs. and under.	251 lbs. to 500 lbs.	501 lbs. to 2,000 lbs.	2,001 lbs. to 4,000 lbs.	4,001 lbs. to 6,000 lbs.	6,001 lbs. and upwards.	Total.	Miscellaneous.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	118	...	...	38	1	...	...	177	21	271	51	18	79	801	66
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	3	...	...	3	1	...	...	15	5	57	5	5	30	125	14
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	49	...	...	35	3	2	1	58	7	78	8	4	16	276	73
43	170	...	...	76	5	2	1	250	33	406	64	27	125	1,202	153
1	3	...	...	5	...	...	...	9	14	31	8	4	10	85	4
3	11	...	...	9	...	1	...	7	7	10	5	1	1	55	1
...	...	...	...	1	...	...	...	...	4	2	1	1	2	11	1
...	3	...	...	...	1	3	...	2	1	...	...	...	...	10	...
4	17	...	...	15	1	4	...	18	26	43	14	6	13	161	6
1	1	...	...	...	...	...	...	1	2	3	...	...	...	8	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	...	...	...	...	...	...	2	...	10	2	...	4	20	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	...	...	...	...	...	...	2	...	10	2	...	4	20	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	2	...	...	1	...	...	...	10	2	11	7	4	19	56	191
...	...	...	...	...	...	...	...	...	...	...	...	2	4	6	2
...	...	...	...	2	...	...	...	6	...	5	...	1	10	24	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	192	...	...	94	6	6	1	287	63	478	87	40	175	1,477	366

W. J. GERALD,
Deputy Minister.

APPENDIX E.

STATEMENT of Gas Inspection Expenditures and Revenues for the Fiscal Year ended March 31, 1912.

Districts.	Inspectors and Assistants.	Expenditures.						Revenues.
		Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Barrie	Shanacy, M.	100 00	.....	..	.....	1 90	101 90	142 60
Belleville	Johnson, Wm. Stuart, W. E.	524 97	...	162 50	2 95	85 90	776 32	316 25
Berlin	Powell, J. B.	167 67	7 50	....	78 95	26 20	280 32	434 20
Brockville	Fraser, H.	.....	...	..	.....	163 84	163 84	203 30
Cobourg	Bickle, J. W.	100 00	6 00	....	29 10	26 42	161 52	189 20
Cornwall	Fraser, H.	.....	.....	....	....	.....	.....	21 75
Guelph	Broadfoot, S	300 00	...	...	.....	68 49	368 49	460 25
Hamilton	McPhie, D. McPhie, W. H. Dennis, F. C. Murphy, F. C.	4,083 14	1 50	120 00	176 35	79 25	4,460 24	8,221 95
Kingston	Fraser, H.	.....	.....	...	..	.....	.....	608 95
Listowel	Male, Thos.	100 00	3 00	78 00	....	9 00	190 00	43 20
London	Nash, A. F. Skelton, A. R. Nash, J. F.	2,441 58	267 00	....	385 40	82 62	3,176 60	3,379 35
Napanee	Johnson, Wm.	.....	..	....	44 55	1 73	46 28	49 75
Ottawa	Roche, H. G. Bond, M. B. Roche, W. J. McEwen, G. E.	3,333 24	133 39	600 00	3 50	107 50	4,177 63	1,612 95
Owen Sound	Graham, W. J.	200 00	.....	....	..	1 00	201 00	160 75
Peterborough	Rork, T	150 00	.....	....	.....	4 00	154 00	350 70
Sarnia	Thrasher, W. A.	200 00	.....	....	...	3 65	203 65	436 35
Stratford	Rennie, Geo.	200 00	6 00	...	....	7 00	213 00	214 05
Toronto	Stiver, J. L. Pape, Jas. Hunter, W. M. Renahan, M. J. Ogden, G. J. Clark, H. M. Johnstone, S. G. Reesor, M. W. Finnigan, W. P. Hacker, A. H. Mills, A. E.	7,328 78	1,682 35	...	.....	205 50	8,616 63	14,836 05
Woodstock	Orr, H. N.	200 00	6 00	.....	.....	6 30	212 30	222 35
Ontario		19,429 38	1,512 74	960 50	720 80	880 30	23,503 72	31,903 95
Montreal	Aubin, A. O'Flaherty, M. J. Aubin, C.	5,024 82	6 00	240 00	131 90	953 73	6,356 45	11,470 60
Quebec	LeVasseur, N. Béland, F. X. J. E.	1,608 22	20 00	150 00	....	102 10	1,880 32	557 85
Sherbrooke	Simpson, A. F. Bowen, F. C.	333 26	.....	.....	.....	.....	333 26	103 15
St. Hyacinthe	Benoit, L. V.	100 00	.....	.....	.....	.....	100 00	83 95
Quebec		7,066 30	26 00	390 00	131 90	1,055 83	8,670 03	12,215 55
Fredericton	Wilson, J. E.	100 00	.....	.....	...	.....	100 00	.....
St. John	Wilson, J. E.	1,300 00	.....	.....	102 40	46 50	1,448 90	622 05
New Brunswick		1,400 00	.....	.....	102 40	46 50	1,548 90	622 05

APPENDIX E—*Continued.*

STATEMENT of Gas Inspection Expenditures and Revenues for the Fiscal Year ended March 31, 1912.

Districts.	Inspectors and Assistants.	Expenditures. Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	Revenues.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Halifax, N.S.	Toale, John Munro, H. D. Withers, S. W.	2,199 96	10 00	507 36	265 50	336 23	3,319 05	356 90
Charlottetown, P.E.I	Bell, J. H	500 00	.....	...	.....	.....	500 00	49 00
Winnipeg, Man.	Hamilton, R. Robington, F. C.	2,624 96	83 33	....	21 00	42 52	2,771 81	2,408 75
Calgary, Alberta	Kylie, W. P.	900 00	75 67	....	....	79 93	155 60	124 80
Nanaimo	Shaw, John	100 00	.....	....	....	.....	100 00	89 30
New Westminster	Wolfenden, Wm.	200 00	.....	....	.....	2 75	202 75	72 75
Vancouver	Stott, Jas	.....	8 00	.....	.....	114 40	122 40	2,807 10
Victoria	Jones, R.	300 00	.....	.....	.....	.....	300 00	706 10
	British Columbia	600 00	8 00	.....	.....	117 15	725 15	3,675 25

RECAPITULATION.

—	Expenditures. Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	Revenues.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario	19,429 38	1,512 74	960 50	720 80	880 30	23,503 72	31,903 95
Quebec	7,066 30	26 00	390 00	131 90	1,055 83	8,670 03	12,215 55
New Brunswick	1,400 00	.....	.....	102 40	46 50	1,548 90	622 05
Nova Scotia	2,199 96	10 00	507 36	265 50	336 23	3,319 05	356 90
Prince Edward Island	500 00	.....	.....	.....	.....	500 00	49 00
Manitoba	2,624 96	83 33	.....	21 00	42 52	2,771 81	2,408 75
Alberta	.....	75 67	.....	.....	79 93	155 60	124 80
British Columbia	600 00	8 00	.....	.....	117 15	725 15	3,675 25
Eastern Dominion Inspector	.....	.....	.....	382 60	.....	382 60	.....
Western " "	.....	.....	.....	63 75	6 29	70 04	.....
General Contingencies	.....	.....	.....	.....	1,460 90	1,460 90	.....
Printing	.....	.....	.....	.....	1,083 52	1,083 52	.....
Stationery	.....	.....	.....	.....	1,041 15	1,041 15	.....
Grand total	33,820 60	1,715 74	1,867 86	1,687 95	6,150 32	45,232 47	51,356 25

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest.	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Barrie—								
April			18·52	0	1			
May			18·51	0	1			
June			18·90	0	1			
July			18·11	0	1			
August			18·44	0	1			
September			16·52	0	1			
October			18·34	0	1			
November			18·16	0	1			
December			16·66	0	1			
January			17·58	0	1			
February			18·79	0	1			
March			19·20	0	1			
				0	12			
Belleville—								
April	19·73	18·37	19·05	0	2			
May	20·65	18·37	19·51	0	2			
June	16·39	16·19	16·29	0	2			
July	17·86	16·01	16·93	0	2			
August								
September	16·33	15·55	15·94	1	2			
October	17·09	17·00	17·04	0	2			
November	15·42	15·10	15·26	2	2			
December	14·71	14·22	14·46	2	2			
January	16·72	15·16	15·94	1	2			
February	18·04	16·98	17·51	0	2			
March	18·07	16·97	17·52	0	2			
				6	22			
Deseronto—								
April			24·00	0	1			
May								
June			18·04	0	1			
July			20·50	0	1			
August								
September								
October			19·50	0	1			
November								
December								
January								
February								
March								
				0	4			

F.

Inspected during the Year ended March 31, 1912.

Cubic Feet 35 Grains		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
										No tests.
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							22	0	22	
							1	0	1	
										No tests
							1	0	1	
							1	0	1	
										No tests.
							1	0	1	
										No tests.
							4	0	4	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power.—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Berlin—								
April			17·39	0	1			
May			18·70	0	1			
June			19·55	0	1			
July			18·91	0	1			
August			19·24	0	1			
September			17·24	0	1			
October			20·30	0	1			
November			18·80	0	1			
December			18·20	0	1			
January			19·39	0	1			
February			19·77	0	1			
March			18·53	0	1			
				0	12			
Brockville—								
April	19·30	19·00	19·15	0	2			
May	19·30	19·00	19·10	0	3			
June			18·80	0	1			
July	19·00	18·80	18·90	0	2			
August			18·60	0	1			
September	19·80	18·60	19·20	0	2			
October			19·00	0	1			
November	19·00	18·60	18·80	0	2			
December			18·70	0	1			
January	19·20	18·70	18·95	0	1			
February			10·80	0	1			
March	18·80	18·70	18·70	0	1			
				0	20			
Cobourg—								
April			17·29	0	1			
May			17·17	0	1			
June			18·45	0	1			
July			17·37	0	1			
August			18·11	0	1			
September			17·59	0	1			
October			18·36	0	1			
November			17·76	0	1			
December			18·31	0	1			
January			16·97	0	1			
February			17·59	0	1			
March			17·01	0	1			
				0	12			

F—*Continued*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							0	1	1	
							0	2	2	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							10	3	13	
							2	0	2	
							3	0	3	
							1	0	1	
							2	0	2	
							1	0	1	
							2	0	2	
							1	0	1	
							2	0	2	
							1	0	1	
							2	0	2	
							1	0	1	
							2	0	2	
							20	0	20	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	3	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							24	0	24	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of Tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Port Hope—								
April			18·59	0	1			
May			18·18	0	1			
June			17·84	0	1			
July			17·72	0	1			
August			18·29	0	1			
September			19·32	0	1			
October			19·30	0	1			
November			19·05	0	1			
December			17·59	0	1			
January			17·06	0	1			
February			17·33	0	1			
March			17·39	0	1			
				0	12			
Cornwall—								
April								
May								
June								
July								
August								
September								
October			18·80	0	1			
November			18·40	0	1			
December	18·80	18·40	18·70	0	3			
January								
February			18·40	0	1			
March	18·40	18·00	18·20	0	2			
				0	8			
Guelph—								
April			17·45	0	1			
May			18·77	0	1			
June			18·95	0	1			
July			19·43	0	1			
August			21·22	0	1			
September			20·34	0	1			
October			20·02	0	1			
November			19·88	0	1			
December			19·50	0	1			
January			18·74	0	1			
February			18·17	0	1			
March			19·55	0	1			
				0	12			

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 32 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of Tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of Tests.	No. of times absent.	No. of times present.	No. of Tests.	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							3	0	3	
							2	0	2	
							2	0	2	
							2	0	2	
							25	0	25	
							1	0	1	
							1	0	1	
							3	0	3	
										No tests.
							0	1	1	
							1	1	2	
							6	2	8	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Offices.	Illuminating Power.—Standard. 16 Candles.					Sulphur per 100 Allowance		
	Highest.	Lowest.	Average.	No. of times below Standard.	No. of Tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Waterloo—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Hamilton—								
April	17·76	17·75	17·75	0	2			
May	17·76	17·63	17·69	0	2			
June	18·03	17·97	18·00	0	2			
July	17·92	17·61	17·76	0	2			
August	17·88	17·71	17·79	0	2			
September	17·80	17·63	17·73	0	3			
October	17·87	17·42	17·64	0	2			
November	18·02	17·61	17·81	0	2			
December	17·76	17·71	17·73	0	2			
January	18·02	17·88	17·95	0	2			
February	17·88	17·75	17·81	0	2			
March	17·98	17·63	17·77	0	2			
				0	25			
Brantford—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								

F—*Continued.*

Inspected during the year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted. Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of Allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							3	0	3	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							25	0	25	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							3	0	3	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							3	0	3	
							26	0	26	

APPENDIX

Return of Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of Tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Bertie—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Dominion Natural Gas— Dundas and Dunnville.								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Port Colborne, Welland—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of Tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of Tests.	No. of times absent.	No. of times present.	No. of Tests.	
							4	0	4	
							3	0	3	
							5	0	5	
							4	0	4	
							4	0	4	
							5	0	5	
							4	0	4	
							4	0	4	
							5	0	5	
							4	0	4	
							4	0	4	
							5	0	5	
							51	0	51	

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Provincial N. G. & Fuel Co., Niagara Falls.								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
St. Catharines—								
April			17·16	0	1			
May			16·54	0	1			
June			16·42	0	1			
July			16·23	0	1			
August			17·25	0	1			
September			16·78	0	1			
October			16·54	0	1			
November			16·42	0	1			
December			16·44	0	1			
January			16·42	0	1			
February			16·75	0	1			
March			16·44	0	1			
				0	12			
Dominion N. Gas, Galt—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								

F.

Inspected during the Year ended March 31, 1912.

Cubic Feet 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							0	4	4	
							0	4	4	
							0	5	5	
							0	4	4	
							0	4	4	
							0	5	5	
							0	4	4	
							0	4	4	
							0	5	5	
							0	4	4	
							0	4	4	
							0	5	5	
							0	52	52	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power.—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
United Gas Co—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Ontario Pipe Line—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Port Rowan Natural Gas Co—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	
							4	0	4	
							4	0	4	
							5	0	5	
							4	0	4	
							4	0	4	
							5	0	5	
							4	0	4	
							4	0	4	
							5	0	5	
							4	0	4	
							4	0	4	
							5	0	5	
							52	0	52	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of Tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Norfolk Nat. Gas—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Sterling Gas Co.—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Kingston—								
April			19·10	0	1			
May			18·90	0	1			
June			19·00	0	1			
July			18·98	0	1			
August			18·80	0	1			
September			18·92	0	1			
October			18·60	0	1			
November			18·90	0	1			
December			19·00	0	1			
January			19·40	0	1			
February			19·00	0	1			
March			18·80	0	1			
				0	12			

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of Tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of Tests.	No. of times absent.	No. of times present.	No. of Tests.	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	1	1	
							0	12	12	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highert	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Listowel—								
April			18·02	0	1			
May			18·44	0	1			
June			19·39	0	1			
July			18·44	0	1			
August			19·26	0	1			
September			18·90	0	1			
October			20·52	0	1			
November			18·50	0	1			
December			18·70	0	1			
January			19·36	0	1			
February			17·66	0	1			
March			19·62	0	1			
				0	12			
London—								
April	18·37	16·01	17·07	0	10			
May	19·90	16·74	18·32	0	8			
June	19·09	16·36	17·79	0	8			
July	20·70	15·02	20·70	1	10			
August	21·76	16·91	18·46	0	8			
September	20·09	17·18	18·21	0	10			
October	18·76	17·06	18·05	0	8			
November	19·09	17·19	18·13	0	8			
December	18·86	16·64	17·73	0	10			
January	18·91	17·32	17·97	0	8			
February	18·18	16·63	17·46	0	8			
March	17·19	16·34	16·85	0	10			
				1	106			
Chatham—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted. Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of Allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	
							10	0	10	
							8	0	8	
							8	0	8	
							10	0	10	
							8	0	8	
							10	0	10	
							8	0	8	
							8	0	8	
							10	0	10	
							8	0	8	
							8	0	8	
							10	0	10	
							106	0	106	
							3	0	3	
							1	0	1	
							2	0	2	
							1	0	1	
							1	0	1	
							1	0	1	
							2	0	2	
							2	0	2	
							1	2	3	
							1	0	1	
							2	0	2	
							1	1	2	
							18	3	21	

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Ingersoll—								
April			20·10	0	1			
May			13·47	1	1			
June	20·10	13·47	15·90	2	3			
July			15·38	1	1			
August			19·88	0	1			
September			17·91	0	1			
October			19·80	0	1			
November			21·68	0	1			
December			17·33	0	1			
January			20·31	0	1			
February			18·48	0	1			
March			20·59	0	1			
				4	14			
St. Thomas—								
April	17·71	16·46	17·08	0	2			
May	18·41	16·02	17·21	0	2			
June	17·86	16·48	17·17	0	2			
July	18·64	17·70	18·17	0	2			
August	18·49	16·43	17·46	0	2			
September	18·21	16·92	17·56	0	2			
October	20·33	18·63	19·48	0	2			
November	20·18	18·25	19·21	0	2			
December	17·67	17·34	17·50	0	2			
January	21·75	21·24	21·49	0	2			
February	19·33	18·96	19·14	0	2			
March	18·80	17·31	18·05	0	2			
				0	24			
Windsor—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			
No. of times in excess of allowance.	No. of Tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	Remarks.
							1	0	1	
							1	0	1	
							3	0	3	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							14	0	14	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							24	0	24	
							0	3	3	
							0	2	2	
							2	0	2	
							1	1	2	
							1	1	2	
							2	2	4	
							0	2	2	
							0	3	3	
							0	2	2	
							0	2	2	
							1	1	2	
							1	3	4	
							8	22	30	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Napanee—								
April			22·14	0	1			
May			20·13	0	1			
June			19·06	0	1			
July								
August								
September			18·75	0	1			
October			18·43	0	1			
November			18·40	0	1			
December			18·68	0	1			
January			17·41	0	1			
February			17·91	0	1			
March			18·75	0	1			
				0	10			
Ottawa—								
April	16·39	15·85	16·14	7	8	14·81	14·71	14·76
May	16·36	16·23	16·29	0	8	14·39	14·30	14·34
June	16·51	16·23	16·39	0	10	14·41	14·01	14·21
July	16·45	16·06	16·32	0	8	14·95	14·11	14·53
August	16·64	16·11	16·44	0	8	14·54	14·36	14·45
September	16·67	16·28	16·46	0	10	14·59	14·38	14·48
October	16·94	15·85	16·45	1	8	14·70	14·64	14·67
November	16·42	16·15	16·31	0	8	14·71	14·19	14·45
December	16·46	16·06	16·29	0	10	14·47	14·38	14·42
January	16·55	16·28	16·38	0	8			
February	16·30	15·90	16·13	1	8	14·95	14·81	14·88
March	16·21	15·76	16·03	3	10	14·58	14·35	14·46
				12	104			
Owen Sound								
April			16·12	0	1			
May			16·26	0	1			
June			16·10	0	1			
July			16·44	0	1			
August			16·30	0	1			
September			16·05	0	1			
October			16·50	0	1			
November			16·71	0	1			
December			16·05	0	1			
January			17·00	0	1			
February			16·82	0	1			
March			16·80	0	1			
				0	12			

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	0	1	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	No tests made.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	" "
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	0	1	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
							8	2	10	
0	2	2·30	2·17	2·23	0	2	8	0	8	
0	2	2·28	1·17	1·72	0	2	8	0	8	
0	2	2·31	2·26	2·28	0	2	10	0	10	
0	2	2·26	1·22	1·74	0	2	8	0	8	
0	2	2·13	1·27	1·70	0	2	8	0	8	
0	2	2·13	1·91	2·02	0	2	10	0	10	
0	2	2·14	1·09	1·61	0	2	8	0	8	
0	2	2·26	1·16	1·71	0	2	8	0	8	
0	2	2·34	1·10	2.72	0	2	10	0	10	
.....	.....	.....	.....	.....	.....	.....	8	0	8	No tests made owing to changing laboratory.
0	2	2·63	2·15	2·39	0	2	8	0	8	
0	2	2·11	1·70	1·90	0	2	10	0	10	
0	22				0	22	104	0	104	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
							12	0	12	

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard	No. of Tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Peterborough—								
April	18·40	18·20	18·30	0	2	.....	.....	.....
May	20·20	19·60	19·90	0	2	.....	.....	.....
June	20·15	19·20	19·67	0	2	.....	.....	.....
July	18·20	18·00	18·10	0	2	.....	.....	.....
August	20·20	19·60	19·90	0	2	.....	.....	.....
September	18·80	18·20	18·50	0	2	.....	.....	.....
October	20·10	19·60	19·85	0	2	.....	.....	.....
November	20·00	19·20	19·60	0	2	.....	.....	.....
December	20·05	19·80	19·93	0	2	.....	.....	.....
January	20·00	18·80	19·40	0	2	.....	.....	.....
February	18·60	18·00	18·30	0	2	.....	.....	.....
March	18·60	18·40	18·50	0	2	.....	.....	.....
				0	24			
Sarnia—								
April	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....
Stratford—								
April	.....	.....	17·34	0	1	.....	.....	.....
May	.....	.....	17·01	0	1	.....	.....	.....
June	.....	.....	16·96	0	1	.....	.....	.....
July	.....	.....	18·62	0	1	.....	.....	.....
August	.....	.....	19·30	0	1	.....	.....	.....
September	.....	.....	19·97	0	1	.....	.....	.....
October	.....	.....	16·77	0	1	.....	.....	.....
November	.....	.....	16·93	0	1	.....	.....	.....
December	.....	.....	18·83	0	1	.....	.....	.....
January	.....	.....	16·48	0	1	.....	.....	.....
February	.....	.....	18·37	0	1	.....	.....	.....
March	.....	.....	17·60	0	1	.....	.....	.....
				0	12			

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of test.	Highest. Grains.	Lowest Grains.	Average. Grains.	Times in excess of allowance	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							24	0	24	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							19	0	19	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Toronto								
April	17·85	16·21	17·00	0	8	.....	.....	.....
May	18·63	16·29	17·12	0	10	.....	.....	.....
June	18·02	16·73	17·47	0	8	14·45	10·98	12·71
July	18·06	17·00	17·59	0	10	18·71	4·86	11·78
August	17·88	16·72	17·53	0	8	14·29	11·45	12·87
September	17·70	16·55	17·31	0	8	15·24	11·18	13·21
October	17·45	16·63	17·11	0	10	19·65	17·31	18·48
November	17·59	16·97	17·24	0	8	15·04	14·61	14·82
December	17·52	16·61	16·97	0	8	15·83	11·27	13·55
January	17·42	16·49	16·93	0	10	20·12	15·30	17·71
February	17·66	16·75	17·02	0	8	19·78	16·83	18·30
March	17·34	15·72	16·76	1	8	19·66	16·75	18·20
				1	104			
Woodstock—								
April	.....	.....	16·52	0	1	.....	.....	.....
May	.....	.....	16·26	0	1	.....	.....	.....
June	.....	.....	16·54	0	1	.....	.....	.....
July	.....	.....	16·68	0	1	.....	.....	.....
August	.....	.....	17·16	0	1	.....	.....	.....
September	.....	.....	16·65	0	1	.....	.....	.....
October	.....	.....	17·31	0	1	.....	.....	.....
November	.....	.....	17·22	0	1	.....	.....	.....
December	.....	.....	17·31	0	1	.....	.....	.....
January	.....	.....	16·30	0	1	.....	.....	.....
February	.....	.....	16·44	0	1	.....	.....	.....
March	.....	.....	16·60	0	1	.....	.....	.....
				0	12			
Montreal—								
April	16·30	16·00	16·11	0	8	2·46	1·96	2·21
May	16·53	16·00	16·19	0	9	2·68	2·37	2·52
June	16·66	16·00	16·26	0	9	2·24	1·98	2·11
July	16·75	16·06	16·22	0	8	2·87	2·58	2·72
August	18·92	16·12	17·11	0	9	2·83	2·27	2·55
September	18·14	16·16	17·40	0	9	2·40	1·91	2·15
October	18·69	16·17	17·28	0	9	2·79	2·41	2·60
November	17·54	16·00	16·45	0	8	2·75	2·47	2·61
December	17·30	16·03	16·40	0	9	1·85	1·80	1·82
January	16·66	16·07	16·37	0	9	4·11	2·40	3·25
February	18·82	16·20	17·29	0	8	3·52	2·25	2·88
March	17·82	16·45	17·04	0	9	3·10	2·10	2·60
				0	104			

F.—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet 35 Grains.		Ammonia per 100 Cubic Feet. Allowance 4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
.....	.....	.....	.....	.....	.....	.....	8	0	8	
.....	.....	.....	.....	.....	.....	.....	10	0	10	
0	2	.....	.....	0·63	0	1	8	0	8	
0	2	1·57	1·04	1 30	0	2	10	0	10	
0	2	1·04	0·78	0·91	0	2	8	0	8	
0	2	2·45	0·63	1·54	0	2	8	0	8	
0	2	0·61	0·00	0·30	0	2	10	0	10	
0	2	.....	.....	0·25	0	1	8	0	8	
0	2	.....	.....	Nil.	.....	.....	8	0	8	
0	2	.....	.....	"	.....	.....	10	0	10	
0	2	.....	.....	"	.....	.....	8	0	8	
0	2	.....	.....	"	.....	.....	8	0	8	
0	20				0	10	104	0	104	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
							12	0	12	
0	2	0·00	0·00	0·00	0	2	12	0	12	
0	2	0·00	0·00	0·00	0	2	14	0	14	
0	2	0 00	0·00	0·00	0	2	14	0	14	
0	2	0·00	0·00	0 00	0	2	12	0	12	
0	2	0·00	0·00	0 00	0	2	14	0	14	
0	2	0·00	0·00	0·00	0	2	14	0	14	
0	2	0·00	0·00	0·00	0	2	14	0	14	
0	2	0·00	0·00	0·00	0	2	12	0	12	
0	2	0·00	0 00	0·00	0	2	14	0	14	
0	2	0·00	0 00	0·00	0	2	14	0	14	
0	2	0·00	0·00	0·00	0	2	12	0	12	
0	2	0·00	0·00	0·00	0	2	14	0	14	
0	24				0	24	160	0	160	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Quebec—								
April	17·79	16·93	17·36	0	2	18·23	16·58	17·40
May	17·23	17·19	17·21	0	2	20·55	18·89	19·72
June	17·95	17·01	17·48	0	2	21·26	16·76	19·01
July	17·41	17·24	17·32	0	2	18·60	18·42	18·51
August	17·57	17·06	17·31	0	2	20·63	18·55	19·59
September	18·01	18·00	18·00	0	2	21·66	19·34	20·50
October	18·59	18·16	18·37	0	2	21·19	16·83	19·01
November	18·21	17·85	18·03	0	2	29·30	18·67	19·48
December	17·84	16·94	17·39	0	2	16·94	14·96	15·95
January	17·54	17·45	17·49	0	2	19·24	17·84	18·54
February	17·56	17·46	17·51	0	2	19·59	17·08	18·33
March	18·02	17·57	17·79	0	2	17·94	15·14	16·54
				0	24			
Sherbrooke—								
April			23·88	0	1			
May			24·52	0	1			
June			25·83	0	1			
July			24·74	0	1			
August			25·13	0	1			
September			26·63	0	1			
October			38·01	0	1			
November			40·04	0	1			
December			37·60	0	1			
January			35·43	0	1			
February			33·02	0	1			
March			38·07	0	1			
				0	12			
St Hyacinthe—								
April			18·22	0	1			
May			18·36	0	1			
June			18·36	0	1			
July			18·24	0	1			
August			18·32	0	1			
September			18·36	0	1			
October			18·54	0	1			
November			18·42	0	1			
December			18·24	0	1			
January			18·18	0	1			
February			18·24	0	1			
March			18·24	0	1			
				0	12			

F—*Continued*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	2	.....	.....	0·00	0	2	2	0	2	
0	12				0	24	24	0	24	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
							12	0	12	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	1	2	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
							12	0	12	

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Frederiction								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
St. John—								
April	17·57	17·34	17·45	0	2			20·29
May	17·79	17·47	17·63	0	2			22·25
June	18·13	18·09	18·11	0	2			24·16
July	17·61	17·35	17·48	0	2			21·22
August	17·84	17·82	17·83	0	2			23·57
September	18·03	17·98	18·00	0	2			
October	17·92	17·63	17·77	0	2			22·73
November	17·83	17·44	17·63	0	2			25·35
December	18·68	17·51	18·09	0	2			27·46
January	17·66	16·91	17·28	0	2			24·34
February			17·12	0	1			20·08
March	17·91	17·80	17·85	0	2			23·89
				0	23			
Moncton—								
April			18·88	0	1			
May			19·44	0	1			
June			18·87	0	1			
July			19·20	0	1			
August			17·22	0	1			
September			17·57	0	1			
October			18·30	0	1			
November			16·77	0	1			
December			17·50	0	1			
January			17·44	0	1			
February			18·21	0	1			
March			18·17	0	1			
				0	12			

F.—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Gas Co. retired from business.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	.....	.....	.....	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	2	0	2	
0	1	.....	.....	0·00	0	1	1	0	1	
0	1	.....	.....	0·00	0	1	2	0	2	
0	11				0	11	23	0	23	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
.....	.....	.....	.....	.....	.....	.....	1	0	1	
							12	0	12	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power.—Standard. 16 Candles.					Sulphur per 100 Allowance—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
St. Stephen—								
April								
May								
June								
July								
August								
September								
October								
November								
December								
January								
February								
March								
Halifax—								
April			16·11	0	1			21·22
May			16·06	0	1			24·64
June			16·10	0	1			21·07
July			16·34	0	1			25·19
August			16·91	0	1			24·75
September			17·05	0	1			21·49
October			17·08	0	1			13·59
November			16·42	0	1			16·77
December			16·84	0	1			19·42
January			16·62	0	1			9·72
February			17·97	0	1			20·80
March			17·87	0	1			18·13
				0	12			
Yarmouth—								
April			16·04	0	1			
May			16·02	0	1			
June			16·00	0	1			
July			16·06	0	1			
August			16·00	0	1			
September			16·80	0	1			
October			17·21	0	1			
November			16·03	0	1			
December			16·00	0	1			
January			16·15	0	1			
February			15·34	1	1			
March			16·51	0	1			
				1	12			

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	1						1	0	1	
0	12						12	0	12	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	

APPENDIX

Return of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power—Standard. 16 Candles.					Sulphur per 100 Allowance.		
	Highest.	Lowest.	Average.	No. of times below standard	No. of Test.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
Charlottetown—								
April	16·73	15·12	15·77	3	4			
May	15·43	14·36	22·26	3	3			
June	14·47	14·11	14·29	2	2			
July	16·50	13·48	14·99	1	2			
August			17·20	0	1			
September			17·22	0	1			
October			17·87	0	1			
November			15·21	1	1			
December			17·67	0	1			
January			17·43	0	1			
February			16·64	0	1			
March	15·40	14·79	15·05	3	3			
				13	21			
Winnipeg								
April	18·54	15·40	17·02	2	10			
May	17·76	16·45	14·30	2	8			
June	17·50	14·50	15·96	2	5			
July	17·07	15·80	15·70	5	8			
August	16·17	15·26	15·77	5	8			
September	18·20	14·37	16·04	6	10			
October	17·38	15·60	16·59	1	8			
November	18·81	15·14	16·29	5	10			
December	16·77	15·30	16·10	3	8			
January	15·62	13·43	14·83	8	8			
February	17·30	15·60	16·40	2	8			
March	17·70	14·50	16·22	4	10			
				45	101			
Nanaimo—								
April			17·82	0	1			
May			17·96	0	1			
June			18·32	0	1			
July			17·37	0	1			
August			16·33	0	1			
September			17·37	0	1			
October			17·12	0	1			
November			17·96	0	1			
December			17·59	0	1			
January			16·25	0	1			
February			16·19	0	1			
March			16·12	0	1			
				0	12			

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							0	4	4	
							0	3	3	
							0	2	2	
							1	1	2	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							0	3	3	
							8	13	21	
							10	0	10	
							8	0	8	
							5	0	5	
							8	0	8	
							8	0	8	
							10	0	10	
							8	0	8	
							10	0	10	
							8	0	8	
							8	0	8	
							8	0	8	
							10	0	10	
							101	0	101	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	

APPENDIX

RETURN of the Illuminating Power and Purity of Gas

Inspection Office.	Illuminating Power.—Standard. 16 Candles.					Sulphur per 100 Allowanc—		
	Highest.	Lowest.	Average.	No. of times below standard.	No. of tests.	Highest	Lowest.	Average
	Candles.	Candles.	Candles.			Grains.	Grains.	Grains.
New Westminster—								
April	.....	.....	19·00	0	1	.....	.....	.....
May	.....	.....	18·91	0	1	.....	.....	.....
June	.....	.....	18·83	0	1	.....	.....	.....
July	.....	.....	18·64	0	1	.....	.....	.....
August	.....	.....	18·58	0	1	.....	.....	.....
September	.....	.....	18·64	0	1	.....	.....	.....
October	.....	.....	19·69	0	1	.....	.....	.....
November	.....	.....	18·53	0	1	.....	.....	.....
December	.....	.....	18·77	0	1	.....	.....	.....
January	.....	.....	18·83	0	1	.....	.....	.....
February	.....	.....	18·58	0	1	.....	.....	.....
March	.....	.....	18·61	0	1	.....	.....	.....
				0	12			
Vancouver—								
April	17·40	11·00	14·27	7	8	.....	.....	.....
May	15·30	10·52	12·61	8	8	.....	.....	.....
June	13·54	10·10	12·09	10	10	.....	.....	.....
July	17·50	12·20	14·58	5	8	.....	.....	.....
August	16·80	9·75	14·52	8	10	.....	.....	.....
September	18·50	13·60	15·25	6	8	.....	.....	.....
October	17·00	13·00	14·84	7	8	.....	.....	.....
November	15·30	12·70	14·33	8	8	.....	.....	.....
December	14·90	9·90	12·78	10	10	.....	.....	.....
January	13·60	11·10	12·67	8	8	.....	.....	.....
February	17·20	12·34	14·51	9	10	.....	.....	.....
March	14·70	12·70	13·85	8	8	.....	.....	.....
				94	104			
Victoria—								
April	13·25	10·70	11·97	2	2	.....	.....	.....
May	11·20	10·28	10·74	2	2	.....	.....	.....
June	12·22	12·02	12·12	2	2	.....	.....	.....
July	11·74	11·25	11·49	2	2	.....	.....	.....
August	15·17	14·58	14·88	2	2	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....
October	14·73	12·50	13·87	3	3	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	16·31	15·77	16·00	2	3	.....	.....	.....
January	16·75	15·65	16·11	2	3	.....	.....	.....
February	16·36	15·57	15·89	2	3	.....	.....	.....
March	15·71	14·68	15·29	2	2	.....	.....	.....
				21	24			

INLAND REVENUE DEPARTMENT,

OTTAWA, June 1, 1912.

F—*Continued.*

Inspected during the Year ended March 31, 1912.

Cubic Feet. 35 Grains.		Ammonia per 100 Cubic Feet. Allowance—4 Grains.					Sulphuretted Hydrogen.			Remarks.
No. of times in excess of allowance.	No. of tests.	Highest. Grains.	Lowest. Grains.	Average. Grains.	Times in excess of allowance.	No. of tests.	No. of times absent.	No. of times present.	No. of tests.	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							1	0	1	
							12	0	12	
							8	0	8	
							8	0	8	
							10	0	10	
							8	0	8	
							10	0	10	
							8	0	8	
							8	0	8	
							8	0	8	
							10	0	10	
							8	0	8	
							10	0	10	
							8	0	8	
							104	0	104	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							2	0	2	
							3	0	3	
							3	0	3	
							3	0	3	
							3	0	3	
							2	0	2	
							24	0	24	

W. J. GERALD,
Deputy Minister.

APPENDIX G.

STATEMENT of Gas Meters Presented for Verification, Verified, Rejected and Verified after first Rejection for the Fiscal Year ended March 31, 1912.

Districts.	Presented for Verification.	Kind.		Verified as coming within the error tolerated by law.			Verified after first Rejection.			Rejected.			Totals Verified and Rejected.	
		Wet.	Dry.	Correct.	Fast.	Slow.	Correct.	Fast.	Slow.	Unsound.	Fast.	Slow.	Verified.	Rejected.
Barrie	147	....	147	9	49	73	2	....	4	1	6	3	137	10
Belleville	274	....	274	86	71	115	....	....	....	1	....	1	272	2
Berlin	512	....	512	32	23	435	....	....	....	4	4	14	490	22
Brockville	136	....	136	115	8	13	....	....	....	....	....	....	136	....
Cobourg	177	....	177	9	62	104	....	....	....	....	1	1	175	2
Cornwall	5	....	5	5	....	....	....	....	....	....	....	....	5	....
Guelph	527	....	527	27	194	279	....	1	11	3	9	3	512	15
Hamilton	9,787	....	9,787	1,540	1,798	6,442	....	....	....	....	4	3	9,780	7
Kingston	629	....	629	478	77	74	....	....	....	....	....	....	629	....
Listowel	12	....	12	7	2	3	....	....	....	....	....	....	12	....
London	2,984	....	2,984	625	440	1,886	....	....	....	....	22	11	2,951	33
Napanee	20	....	20	4	10	6	....	....	....	....	....	....	20	....
Ottawa	1,374	....	1,374	297	262	813	....	....	....	....	1	1	1,372	2
Owen Sound	159	....	159	151	....	8	....	....	....	....	....	....	159	....
Peterborough	382	....	382	89	13	271	2	....	2	....	....	5	377	5
Sarnia	496	4	492	413	3	77	....	....	....	2	....	1	493	3
Stratford	158	....	158	23	16	111	....	....	....	3	5	....	150	8
Toronto	21,429	....	21,429	5,040	4,178	12,147	....	....	....	....	45	19	21,365	64
Woodstock	175	....	175	24	45	106	....	....	....	....	....	....	175	....
Montreal	16,877	....	16,877	2,132	5,116	9,214	....	....	....	82	228	105	16,462	415
Quebec	339	....	339	87	31	221	....	....	....	....	....	....	339	....
Sherbrooke	101	....	101	47	14	40	....	....	....	....	....	....	101	....
St. Hyacinthe	66	....	66	32	15	17	....	....	....	....	....	2	64	2
Fredericton	....	....	....	....	....	....	....	....	....	....	....	....	....	....
St. John	604	....	604	312	13	278	....	....	....	....	1	....	603	1
Halifax	210	....	210	127	15	68	....	....	....	....	....	....	210	....
Charlottetown	18	....	18	5	4	5	....	....	1	1	....	2	15	3
Winnipeg	2,750	....	2,750	1,329	752	669	....	....	....	....	....	....	2,750	....
Calgary	206	....	206	65	60	77	....	....	....	....	4	....	202	4
Nanaimo	84	....	84	68	2	14	....	....	....	....	....	....	84	....
New Westminster	51	....	51	1	....	50	....	....	....	....	....	....	51	....
Vancouver	3,362	....	3,362	475	275	2,606	1	1	1	....	1	2	3,359	3
Victoria	765	....	765	193	168	404	....	....	....	....	....	....	765	....
Total	64,816	4	64,812	13,847	13,716	36,626	5	2	19	97	331	173	64,215	601

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912

APPENDIX H.

STATEMENT of Electric Light Inspection Expenditures and Revenues for the Fiscal Year ended March 31, 1912.

District.	Inspectors and Assistants.	Expenditures.						Revenues.
		Salaries.	Special Assistance	Rent.	Travelling Expenses.	Sundries.	Total.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Belleville	Fraser, Harold	1,000 00	.....	...	505 99	51 75	1,557 74	2,367 65
Hamilton	McPhie, D.	.....	.....	.....	190 95	5 19	195 74	2,852 15
London	Nash, A. F.	.....	.....	.....	376 55	21 80	398 35	3,807 50
Ottawa	Roche, H. G.	.....	.....	.....	500 75	.....	500 75	4,258 60
Toronto	Stiver, J. L.	.....	.....	.....	1,357 48	373 17	1,730 65	15,568 40
	Ontario	1,000 00	.....	.....	2,931 32	451 91	4,383 23	28,854 20
Montreal	Aubin, A. / Blandford, E.B	.....	799 92	.....	40 00	23 20	863 12	7,315 40
Quebec	Le Vasseur, N.	.....	.....	.....	23 25	63 35	86 60	673 30
Sherbrooke	Simpson, A. F.	.....	.....	.....	176 70	16 65	193 35	417 40
St. Hyacinthe	Provost, I. E.	300 06	.....	.....	84 95	2 05	387 00	144 00
Three Rivers	Robitaille, G.W.	500 00	.....	120 00	119 70	13 26	752 96	230 75
	Quebec	800 00	799 92	120 00	444 60	118 51	2,283 03	8,780 85
St. John, N.B.	Wilson, J. E.	.....	.....	.....	363 80	10 96	374 76	1,420 20
Halifax, N.S.	Toale, John	.....	.....	...	223 53	26 44	249 97	1,317 85
Charlottetown, P.E.I.	Bell, J. H.	.....	25 00	.....	39 85	44 27	109 12	140 25
Winnipeg, Man	Hamilton, R. / Parkhurst, G.T. / Nagy, G.G.	....	....	185 50	357 30	239 74	2,149 12	8,309 30
Regina, Sask.	Reesor, M. W. / Hunter, W. M.	1,283 30	.....	.....	385 50	49 10	1,717 90	2,730 65
Calgary	Kylie, W. P.	500 00	66 66	.....	123 85	151 75	842 26	1,817 40
Edmonton	Roe, A. E.	1,483 32	.....	.....	356 00	109 78	1,949 10	2,452 75
	Alberta	1,983 32	66 66	...	479 85	261 53	2,791 36	4,270 15
Vancouver	Stott, J.	3,766 58	503 17	.....	66 90	179 11	4,515 76	8,124 60
	Templeton, W.A / Power, O. S.	.....	.....	.....	67 60	31 07	98 67	2,112 05
Victoria	Jones, R.							
	British Columbia	3,766 58	503 17	.....	134 50	210 18	4,614 43	10,236 65
Yukon	Macdonald, J.F.	500 00	.....	.....	.....	.....	500 00	.....
Export of Electric Power Licenses and Natural Gas	....	.....	.....	....	.....	.....	.....	450 00
Laboratory test		.....	.....	.....	.....	.....	.....	51 10
Chief Electrical Engineer	.....	.....	18 73	...	469 82	985 92	1,474 49	...

APPENDIX H—*Concluded.*

STATEMENT of Electric Light Inspection Expenditures and Revenues for the Fiscel Year ended March 31, 1912.

District.	Inspectors and Assistants.	Expenditures.						Revenues.
		Salaries.	Special Assistance	Rent.	Travelling Expenses.	Sundries.	Totals.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Inspector, Eastern Dominion	.....	2,383 32	....	....	72 30	28 85	2,484 47	.....
Inspector, Western Dominion		1,846 66	...	.	480 80	111 69	2,439 15	.....
General Contingencies	.....	.....	.....	.....	.....	7,738 49	7,738 49	.....
Printing	.....	.....	.....	.....	.....	1,005 14	1,005 14	.....
Stationery	.....	.....	.....	.....	.....	446 65	446 65	.....
International technical commission	.....	.....	.....	.....	.....	243 89	243 89	.....
	Grand Totals..	13,563 18	2,780 08	305 50	6,383 17	11,973 27	35,005 20	66,561 20

INLAND REVENUE DEPARTMENT,
OTTAWA, JUNE 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX I.

STATEMENT showing the Number of Electric Meters Verified, Rejected and Verified after first rejection for the Fiscal Year ended March 31, 1912.

Districts.	Presented for Verification.	Verified as coming within the error tolerated by law.			Rejected.			Verified after first Rejection.			Total.	
		Correct.	Fast.	Slow.	Unsound.	Fast.	Slow.	Correct.	Fast.	Slow.	Verified.	Rejected.
Belleville	3,434	2,913	341	180	...	...	...	...	...	...	3,434	...
Hamilton	4,153	1,138	972	2,043	...	...	...	...	...	...	4,153	...
London	5,351	1,857	1,869	1,608	...	6	11	...	...	...	5,334	17
Ottawa	6,507	682	4,274	1,517	24	10	...	...	...	...	6,473	34
Toronto	20,159	9,838	6,011	4,304	...	3	3	...	...	...	20,153	6
Montreal	10,836	5,933	4,347	552	...	3	1	...	...	...	10,832	4
Quebec	975	943	4	28	...	...	...	...	...	...	975	...
Sherbrooke	649	253	236	160	...	...	...	...	...	...	649	...
St. Hyacinthe	186	51	96	38	...	1	...	...	...	...	185	1
Three Rivers	324	223	54	47	...	...	...	...	...	...	324	...
St. John	2,028	1,105	369	529	13	1	8	...	2	1	2,006	22
Halifax	1,928	1,020	490	350	64	...	3	1	...	...	1,861	67
Charlottetown	215	79	57	76	3	...	...	...	...	...	212	3
Winnipeg	11,749	2,377	5,889	3,483	...	...	...	...	...	...	11,749	...
Regina	4,076	736	2,826	504	...	3	5	1	1	...	4,068	8
Calgary	2,953	981	1,391	577	...	1	1	1	1	...	2,951	2
Edmonton	3,246	678	2,122	446	...	...	...	...	...	...	3,246	...
Vancouver	11,478	3,930	5,343	2,186	...	12	2	1	2	2	11,464	14
Victoria	3,048	757	1,835	456	...	...	...	...	...	...	3,048	...
Grand Totals	93,295	35,494	38,526	19,084	104	40	34	4	6	3	93,117	178

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

APPENDIX J.

STATEMENT showing the Electric Light Companies registered under the Electric Light Inspection Act during the Fiscal Year ended March 31, 1912.

Districts.	Name of Company.	Serial Number.	By whom Certificate Issued.	Certificate for Fiscal Year.	Number of Lamps.		
					Arc.	Incandescent.	Totals.
Belleville	The Corporation of Picton	1	C. I. R., Belleville	1911 12	41	7,200	7,610
	W. P. Niles, Wellington	2	"	"	18	1,000	1,180
	The Tweed Electric and Power Co	3	"	"		2,000	2,000
	Fair & Sargent, Bancroft	4	"	"		600	600
	The Frankford Electric Light Co., Ltd	5	"	"		500	500
	The Marmora Electric Light Co	6	"	"		780	780
	Trenton Electric and Water Co	7	"	"	93	23,771	24,701
	Corporation of Madoc	8	"	"	12	1,100	1,220
	The Corporation of Napanee Light, Heat and Power Co	1	C. I. R., Kingston	1911 12	40	3,000	3,400
	School of Mining, Kingston	2	"	"	9	70	160
	The Benjamin Manufacturing Co., of Yarker, Ltd	3	"	"		300	300
	A. A. Connoly, Yarker	4	"	"		125	125
	Corporation of the City of Kingston	5	"	"	155	10,000	11,550
	Wood Product Co., of Canada, Ltd., Donald	1	C. I. R., Peterboro	"	14	1,000	1,140
	The Havelock Electric Light and Power Co.	2	"	"	112	14,000	15,120
	The Light, Heat and Power Co., Ltd., Lindsay	3	"	1911 12	6	130	190
	Otonabee Power Co., Ltd., Peterboro	4	"	"	20	12,000	12,200
	The Port Hope Electric Light and Power Co., Ltd	5	"	"	31	3,500	3,810
	Fowlds Co., Ltd., Hastings	6	"	"	13	850	980
	Bobcaygeon Electric Light Commission	7	"	"	22	1,100	1,320
	The Board of Water, Light and Power Commission, Fenelon Falls	8	"	"	14	1,760	1,900
	The Cobourg Water and Electric Co., Ltd	9	"	"	30	2,500	2,800
	The Peterboro Light and Power Co	10	"	"	262	30,000	32,620
	Corporation of Campbellford	11	"	"	50	3,703	4,203
	W. C. Harrison, Norwood	12	"	"		700	700
	The Colborne Electric Light Co	13	"	"	1	1,100	1,110
	Stephenson Bros., Omemee	14	"	"		500	500
	The Lakefield Electric Light Co	15	"	"	12	1,500	1,620
	The Trenton Electric and Water Co., Ltd., Brighton	16	"	"		800	800
	Water and Light Commisssoners, Prescott	1	C. I. R., Prescott	1911 12	10	6,000	6,100
	St. Lawrence Power Co., Ltd., Wales	2	"	"		389	389
	St. Lawrence Power Co., Ltd., Moulinette	3	"	"		144	144
	St. Lawrence Power Co., Ltd., Mille Roches	4	"	"	230	423	2,723
	Morrisburg Electric Light and Power Co	5	"	"		3,500	3,500

	Gananoque Electric Light and Water Supply Co., Ltd.	6	"	"	25	2,000	2,250
	The Hawkesbury Electric Light and Power Co., Ltd	7	"	"	92	2,570	3,490
	Kemptville Milling Co., Ltd	8	"	"		1,800	1,800
	The Westport Electric Light and Milling Co., Ltd	9	"	"	2	875	895
	Merrickville Electric Light and Power Co	10	"	"	1	525	535
	The Municipality of the Village of Iroquois	11	"	"	12	1,045	1,165
	The Vankleek Hill Electric Co., Ltd.	12	"	"	6	3,280	3,340
	The Brockville Light and Power Department	13	"	"	95	10,000	10,950
	Stormont Electric Light and Power Co., Ltd., Cornwall	14	"	"	16	3,250	3,410
	Bishop & Co., Crysler	15	"	"		600	600
	Cardinal Electric Light Co., Ltd	16	"	"		1,400	1,400
	Winchester Electric Plant	17	"	"		600	600
	Municipal Corporation of the Town of Alexander	18	"	"	3	500	530
Hamilton	Simcoe Gas and Water Co., Ltd.	1	C. I. R., Brantford	1911-12	35		350
	Corporation of the Town of Paris	2	"	"	35	4,000	4,350
	Western Counties Electric Co., Ltd	3	"	"	310	33,890	36,990
	The Delhi Light and Power Co., Ltd	4	"	"		1,600	1,600
	The Brantford Street Railway Co	5	"	"		150	150
	G. H. Boxall, Embro	6	"	"		300	300
	Woodstock Water and Light System	7	"	"	170	10,300	12,000
	Herbert Webster, Norwich	8	"	"		2,115	2,115
	The Burford Electric Light, Heat and Power Co	9	"	"		500	500
	J. G. Field, Tavistock	10	"	"		750	750
	Crystal Beach Co., Ltd	11	"	"	4	1,500	1,540
	Corporation of the Town of Tillsonburg	12	"	"		3,000	3,000
	The Board of Power and Light Commissioners, Ingersoll	13	"	"		4,000	4,000
	The Hamilton Cataract, Power, Light and Traction Co., Ltd	1	C. I. R., Hamilton	1911-12	381	13,458	17,268
	The Hamilton Electric Light and Power Co., Ltd	2	"	"	1,069	108,900	119,590
	The Dundas Electric Co., Ltd	3	"	"	9	3,265	3,355
	The Electric Power and Manufacturing Co., Ltd., Hamilton	4	"	"			
	Corporation of the Town of Niagara Falls	1	C. I. R., St. Catharines	1911-12	106	12,800	13,860
	The Maple Leaf Rubber Co., Ltd., Port Dalhousie	2	"	"	14	1,365	1,505
	The Dunnville Electric Light Co., Ltd	3	"	"	14	2,000	2,140
	The Hamilton Cataract, Power, Light and Traction Co., Ltd., Beamsville	4	"	"		1,709	1,709
	Grimsby Electric Plant	5	"	"		3,424	3,424
	Lincoln Electric Light and Power Co., Ltd., St. Catharines	6	"	"	128	17,006	18,280
	The Ontario Distributing Co., Ltd., Niagara Falls	7	"	"		1,000	1,000
	The Merritton Electric Light and Power Plant	8	"	"		900	900
	The Grimsby Beach Co	9	"	"		2,000	2,000
	Welland Electric Co., Ltd	10	"	"	54	7,500	8,040
	Corporation of the Town of Thoroid	11	"	"	28	3,000	3,280
	Corporation of the Town of Niagara	12	"	"		3,000	3,000
London	Helena Costume Co., Ltd., London	1	C. I. R., London	1911-12	5	2,000	2,050
	The West Lorne Electric Light Co., Ltd	2	"	"	6	470	530
	The Strathroy Board of Electric Light and Water Commissioners	3	"	"	9	5,000	5,090

APPENDIX J—*Continued.*

STATEMENT showing the Electric Light Companies registered under the Electric Light Inspection Act during the Fiscal year ended March 31, 1912—*Continued.*

Districts.	Name of Company.	Serial Number.	By Whom Certificate Issued.	Certificate for Fiscal Year.	Number of Lamps.		
					Arc.	Incandescent.	Totals.
London	H. C. Baird, Son & Co., Ltd., Parkhill	4	"	"	12	1,500	1,620
	The Dutton Electric Light Co., Ltd	5	"	"	5	710	760
	The Sarnia Gas and Electric Light Co., Ltd	6	"	"	130	6,000	7,300
	Walter Mitchell, Port Stanley	7	"	"	.....	2,000	2,000
	Rock Glen Power Co., Ltd., Arcona	8	"	"	1	450	460
	Petrolia Utilities Co., Ltd., Petrolia	9	"	"	38	2,800	3,180
	The London Electric Co., Ltd	10	"	"	59	52,459	53,049
	Hamilton & Prout, Forest	11	"	"	18	1,000	1,180
	Light, Heat and Power Department, St. Thomas	12	"	"	55	6,000	6,550
	The Town of Aylmer	13	"	"	20	3,000	3,200
	City of London	14	"	"	.....	1,100	1,100
	The Alvinston Power Co., Ltd	15	"	"	13	600	730
	Geo. Coultis & Son, Thedford	16	"	"	.....	900	900
	The Glencoe Electric Light Commission	17	"	"	.....	1,000	1,000
	Geo. Chambers, Watford	18	"	"	17	600	770
	J. A. Sharpe, Brussels	1	C. I. R., Stratford	1911-12	9	1,200	1,290
	C. B. Snell & Co. Zuefle, Exeter	2	"	"	17	1,200	1,370
	J. A. Williams & Co., Zurich	3	"	"	.....	321	321
	Corporation of the Village of Blyth	4	"	"	7	500	570
	The Seaforth Electric Light, Heat and Power Co., Ltd	5	"	"	32	2,500	2,820
	Village of Wroxeter	6	"	"	.....	450	450
	Corporation of the Town of Palmerston	7	"	"	.....	1,400	1,400
	The Clinton Electric Light Co	8	"	"	9	2,500	2,590
	The Town of Listowel	9	"	"	.....	1,300	1,300
	The Town of Wingham	10	"	"	34	4,600	4,940
	Corporation of the Town of St. Mary's	11	"	"	47	2,320	2,790
	Town of Goderich	12	"	"	47	4,000	4,470
	John Passmore, Hensall	13	"	"	.....	800	800
	Town of Mitchell	14	"	"	.....	1,000	1,000
	The City of Stratford Light and Heat Commission	15	"	"	25	5,400	5,650
	Walkerville Light and Power Co., Ltd	1	C. I. R., Windsor	1911-12	.....	5,000	5,000
	Sandwich, Windsor and Amherstburg Light Co., Windsor	2	"	"	.....	21,500	21,500
	Kingsville Electric Light Co., Ltd	3	"	"	.....	1,879	1,879

	The Corporation of the Town of Dresden	4	"	"		1,400	1,400
	Corporation of the Village of Thamesville	5	"	"		1,000	1,000
	Leamington Light, Heat and Power Co., Ltd	6	"	"	18	1,995	2,175
	Corporation of the Town of Bothwell	7	"	"	11	460	570
	Tilbury Electric Light Plant	8	"	"	15	1,100	1,250
	W. H. McMackon, Ridgetown	9	"	"	15	2,000	2,150
	Chatham Gas Co., Ltd	10	"	"	12	20,000	20,120
	The Amherstburg Light, Heat and Power Co	11	"	"		1,500	1,500
	The Essex Light and Power Co., Ltd	12	"	"	3	1,350	1,380
	The Corporation of the Town of Blenheim	13	"	"	17	1,800	1,970
	The Premier Electric Light and Power Co., Wallaceburg	14	"	"	31	2,400	2,710
	James A. Secord, Harrow	15	"	"		1,500	1,500
	Wigle & Brown, Windsor	16	"	"		250	250
	The Corporation of the City of Windsor	17	"	"	208	20	2,100
Ottawa	Deschenes Electric Co., Ottawa	1	C. I. R., Ottawa	"			
	Ottawa Electric Co	2	"	"	177	246,944	248,714
	Albert MacLaren, Buckingham	3	"	"	45	3,000	3,450
	Hull Electric Co	4	"	"	70	14,912	15,612
	Corporation of the City of Ottawa	5	"	"	843	85,400	93,830
	The Smith's Falls Electric Power Co., Ltd	1	C. I. R., Perth	"	60	5,000	5,600
	Renfrew Electric Co., Ltd	3	"	"		1,700	1,700
	Citizens' Electric Co., Ltd., Smith's Falls	4	"	"		2 500	2,500
	Carleton Place Electric Light Co	5	"	"		3,625	3,625
	Renfrew Power Co., Ltd	6	"	"	56	4,000	4,560
	Mattawa Electric Light and Power Co., Ltd	7	"	"	14	990	1.130
	The Dowd Milling Co., Ltd., Pakenham	8	"	"		500	500
	North Bay Light, Heat and Power Co., Ltd	9	"	"	47	8,000	8,470
	Eganville Light and Power Co	10	"	"		2,000	2,000
	The Corporation Town of Sudbury	11	"	"	42	5,000	5,420
	Sturgeon Falls Electric Light and Power Co., Ltd	12	"	"	9	2,000	2,090
	The Canadian Copper Cliff	13	"	"	77	6,397	7,167
	Canadian Electric and Water Power Co., Ltd., Perth	14	"	"		6,000	6,000
	Pembroke Electric Light Co., Ltd	15	"	"	67	5,500	6,170
	Galetta Electric Power and Milling Co., Ltd., Arnprior	16	"	"		4,500	4,500
	Almonte Electric Light Commission	17	"	"	16	3,500	3,660
	Municipal Light Plant, Perth	18	"	"	55		550
Toronto	Elmira Milling Co	1	C. I. R., Guelph	"		900	900
	Fergus Electric Light Plant, Fergus	2	"	"	37	2,000	2,370
	Board of Light and Heat Commissioners, Guelph	3	"	"	99	17,480	18,470
	The Berlin Light Commission	4	"	"	143	12,000	13,430
	Galt Gas Light Co., Ltd	5	"	"		11,000	11,000
	Drayton Electric Light	6	"	"		600	600
	John Howes, Harriston	7	"	"	4	900	940
	The Corporation of the Town of Waterloo	8	"	"	29	5,000	5,290
	Mount Forest Water and Light Commission	9	"	"	14	1,000	1,140
	Village of New Hamburg	10	"	"		2,500	2,500
	E. W. B. Snider, St. Jacobs	11	"	"		300	300
	Corporation of the Town of Hespeler	12	"	"		1,500	1,500

APPENDIX J.

STATEMENT showing the Electric Light Companies registered under the Electric Light Inspection Act, during the Fiscal Year ended March 31, 1912.

Districts.	Name of Company.	Serial Number.	By whom Certificate Issued.	Certificate for Fiscal Year.	Number of Lamps. Arc.	Incandescent.	Totals.
Toronto	The Preston Light and Water Commission	13	C.I.R., Guelph	1911-12		4,000	4,000
	John A. Clark, Ayr	14	"	"	1	628	638
	Sauble Falls, Light and Power Co., Wiarton	1	C.I.R., Owen Sound	"	25	1,875	2,125
	The Teeswater Electric Light Co.	2	"	"	25	800	1,050
	The Mildmay Electric Light Co	3	"	"		325	325
	Norman M. McIntyre, Durham	4	"	"	6	1,500	1,560
	Corporation of the Town of Collingwood	5	"	"	68	8,000	8,680
	The Paisley Electric Light Co	6	"	"		900	900
	H. Cargill & Son, Cargill	7	"	"		800	800
	Walter Stewart & Son, Lucknow	8	"	"	13	400	530
	The Chesley Electric Light Co	9	"	"	30	1,500	1,800
	The Georgian Bay Milling and Power Co., Ltd., Meaford	10	"	"	52	3,527	4,047
	The Thos. Andrews Estate, Thornbury	11	"	"	10	900	1,000
	The Walkerton Electric Light and Power Co., Ltd	12	"	"	26	3,650	3,910
	The Wenger Milling Co., Ayton	13	"	"		153	153
	The Hanover Electric Light and Power Co	14	"	"	19	2,320	2,510
	The Saugeen Electric Light and Power Co., Ltd., Port Elgin and Southampton	15	"	"		3,300	3,300
	The Kincardine Electric Light Commission	16	"	"	19	2,616	2,806
	Corporation of Dundalk	17	"	"		800	800
	Corporation of the Town of Owen Sound	18	"	"	100	30,000	31,000
	The Georgian Bay Power Co., Ltd., Eugenia Falls	19	"	"		400	400
	Minnis Bros., Markdale	20	"	"		1,200	1,200
	Corporation of the Town of New Market	1	C. I. R. Toronto	"		4,000	4,000
	Corporation of the Village of Streetsville	2	"	"	33	680	1,010
	Sunderland Electric Power Co., Ltd	3	"	"		700	700
	Corporation of the Town of Barrie	4	"	"	53	5,000	5,530
	J. J. Gould, Uxbridge	5	"	"	12	1,400	1,520
	The Georgetown Electric Light & Power Co., Ltd.	6	"	"	15	1,400	1,550
	Jonas Byer, Stouffville	7	"	"		1,400	1,400
	Stayner Electric Light Co	8	"	"		900	900
	The Aurora Electric Light Co.	9	"	"		1,000	1,000
	Corporation of the Town of Bracebridge	10	"	"	35	5,000	5,350

Toronto	Corporation of the Town of Gravenhurst	11	"	"	4	3,100	3,140
	Dufferin Light & Power Co., Orangeville	12	"	"		3,000	3,000
	Toronto Hydro Electric System	13	"	"			
	J. C. McClennen & Co., Powassan	14	"	"		400	400
	Corporation of the Town of Orillia	15	"	"	50	12,500	13,000
	The Penetanguishene & Midland Electric Street Railway, Light & Power Co., Ltd	16	"	"	16	4,000	4,160
	Toronto Electric Light Co	17	"	"	1,850	500,000	518,500
	The Alliston Electric Light Co	18	"	"		1,800	1,800
	Corporation of Whitby	19	"	"	10	4,000	4,100
	Corporation of Markham	20	"	"		2,000	2,000
	Oshawa Electric Light Co., Ltd	21	"	"	11	2,500	2,610
	Monarch Supply Co., Toronto	22	"	"	25	1,500	1,750
	Weston Electric Light System	23	"	"		100	100
	Cannington Electric Light Co	24	"	"	10	500	600
	John Philip, Grand Valley & Arthur	25	"	"		1,800	1,800
	Brampton Electric Light Co	26	"	"	36	4,800	5,160
	W. S. Summerfeldt, Sutton West	27	"	"		400	400
	Corporation of Acton	28	"	"		1,450	1,450
	Corporation of Port Perry	29	"	"	3	1,100	1,130
	Corporation of Midland	30	"	"	31	4,600	4,910
	Corporation of Milton	31	"	"	20	1,600	1,800
	The Toronto Suburban Railway Co	32	"	"		2,000	2,000
	Corporation of Parry Sound	33	"	"	14	5,000	5,140
	Corporation of Beeton	34	"	"		780	780
	Tagona Water & Light Co., Sault Ste Marie	35	"	"	216	19,250	21,410
	The Hamilton Cataract Power Light & Traction Co., Ltd. Burlington	36	"	"		3,800	3,800
	Simon Plews, Creemore	37	"	"		700	700
	Little Current Lumber Co	38	"	"	35	715	1,065
	Alex. Dobson, Beaverton	39	"	"		1,000	1,000
	Corporation of Thessalon	40	"	"	13	1,200	1,330
Montreal	Beauharnois Electric Light Co	1	C.I.R., Montreal	"	1	1,800	1,810
	The Valleyfield Electric Co., Ltd	2	"	"		3,200	3,200
	Montreal Light, Heat and Power Co	3	"	"	4,804	576,835	624,875
	W. R. Phelps, Huntingdon	4	"	"		700	700
	Corporation of Westmount	5	"	"	206	36,000	38,060
	The Hamelin and Ayers Co., Ltd, Lachute	6	"	"	3	3,000	3,030
	Corporation of the City of Lachine	7	"	"	105	3,800	4,850
	La Compagnie d'Eclairage de Terrebonne	8	"	"		1,200	1,200
	The Saraguay Electric and Water Co., Montreal	9	"	"	106	13,400	14,460
	The St. Jerome Power and Electric Light Co., Ltd	10	"	"	1	1,000	1,010
	Corporation of the Village of St. Agathe des Monts	11	"	"		100	100
	Central Light, Heat and Power Co., Montreal	12	"	"	46	9,999	10,459
Quebec	La Compagnie d'Electricité de Roberval	1	C.I.R., Quebec	"	1	2,000	2,010
	Charles A. Julien, Pont Rouge	2	"	"		600	600
	Corporation of the Town of Fraserville	3	"	"	37	7,000	7,370
	St. Casimir Electric Light Co	4	"	"		400	400
	La Compagnie Electrique de la Baie St. Paul	5		"		2,200	2,200

APPENDIX J—*Continued.*

STATEMENT showing the Electric Light Companies Registered under the Electric Light Inspection Act, during the Fiscal Year ended March 31, 1912—*Continued.*

Districts.	Name of Company.	Serial Number.	Certificate, by whom Issued.	Certificate for Fiscal Year.	Number of Lamps.		
					Arc.	Incandescent.	Totals.
Quebec	Basin Electric Light and Power Co., Ltd., Montmagny	6	C.I.R., Quebec	1911 12	3	3,000	3,030
	La Compagnie de Fonderies et Machineries Ltd., Mont Joli	7	"	"		490	490
	La Compagnie des Eaux et de l'Electricité, Chicontimi	8	"	"		4,600	4,600
	The Labrador Electric and Pulp Co., Murray Bay	9	"	"		2,100	2,100
	La Compagnie Hydraulique et Electrique de Lorette, La Jeune Lorette	10	"	"		1,800	1,800
	Quebec Railway, Light, Heat and Power Co., Ltd., Quebec and Levis	11	"	"	925	128,026	141,236
	Charles A. Julien, St. Raymond	12	"	"		1,500	1,500
	Beauce Electric Power Co., St. George and Beauceville	13	"	"		1,200	1,200
Sherbrooke	The Burrough's Falls Power Co., Ltd., Ayers Cliff	1	C.I.R., Sherbrooke	"		300	300
	Corporation of the Village of Sutton	2	"	"		1,000	1,000
	J. B. Parker, Dixville	3	"	"		125	125
	La Compagnie Champoux, D'Israëli	4	"	"		1,000	1,000
	Corporation of the Town of Magog	5	"	"		2,500	2,500
	Eastern Townships Electric Co., North Hatley	6	"	"		1,950	1,950
	Corporation of the Village of Granby	7	"	"	40	4,000	4,400
	D. C. Horner & Son, West Shefford	8	"	"		200	200
	Richmond County Electric Co	9	"	"		1,150	1,150
	A. G. Hurd, Sawyerville	10	"	"		500	500
	Westbury Electric Light and Power Co., Cookshire	11	"	"		1,700	1,700
	Corporation of the Town of Coaticook	12	"	"	200	3,500	5,500
	Stanstead Electric Light Co., Ltd	13	"	"	28	2,000	2,280
	Corporation of the Town of Bromptonville	14	"	"		840	840
	R. N. & G. H. Gibson, Danville	15	"	"		1,000	1,000
	Brome Lake Electric Power Co., Waterloo	16	"	"		2,000	2,000
	The Scotstown Electric Co	17	"	"		380	380
	Corporation of the Town of Windsor Mills	18	"	"		1,325	1,325
	The Sherbrooke Railway and Power Co.	19	"	"			
	Corporation of the City of Sherbrooke	20	"	"	85	34,000	34,850
	The Empire Power Co., Ltd., Weedon	21	"	"		500	500
	La Compagnie d'Eclairage Electrique du Vilage de Megantic	22	"	"		1,500	1,500
	The Lennoxville Light and Power Co., Ltd	23	"	"		500	500

St. Hyacinthe..	The St. Johns Electric Light Co., Ltd	1	C. I. R., St. Hyacinthe..	"	31	11,000	11,310
	La Compagnie Electrique de Sorel	2	"	"	40	6,000	6,400
	M. S. Connell & Sons, Stanbridge East	3	"	"		225	225
	La Compagnie de Gaz, Electricité et Pouvoir, St. Hyacinthe	4	"	"	15	14,000	14,150
	Nelson Buzzell, Cowansville	5	"	"		450	450
Three Rivers...	La Corporation de la Ville de Joliette	1	C. I. R., Joliette..		87	3,000	3,870
	Dion & Paradis, St. Roch de l'Achigan	2	"	"		500	500
	The Laval Electric Co., Charlemagne	3	"	"		800	800
	The Laval Electric Co., L'Assomption	4	"	"		2,000	2,000
	J. U. Foucher, St. Lin des Laurentides	5	"	"		1,200	1,240
	The St. Maurice Light and Power Co., Berthierville	1	C. I. R., Three Rivers..	"	10	3,500	3,600
	North Shore Power Co., Three Rivers	2	"	"	140	17,000	18,400
St. John..	The Saint John Railway	1	C. I. R., St. John.	"	632	44,300	50,620
	A. & R. Loggie, Loggieville	2	"	"		700	700
	Town of Newcastle	3	"	"	27	3,000	3,270
	The Town of Chatham Light Department	4	"	"	6	4,500	4,560
	The Sussex Manufacturing Co., Ltd	5	"	"		2,000	2,000
	The St. Stephen Electric Light Co	6	"	"	48	2,412	2,892
	The Bathurst Electric and Water Power Co	7	"	"	2	4,000	4,020
	The Fredericton Gas Light Co	8	"	"	38	6,000	6,380
	The Moncton Tramways, Electricity and Gas Co., Ltd	9	"	"	98	12,000	12,980
	C. M. Sherwood, Ltd., Centreville	10	"	"		300	300
	The Dorchester Electric Light and Power Co	11	"	"	6	2,000	2,060
	The Andover and Perth Electric Light Commissioners, Perth	12	"	"		1,600	1,600
	The Kent Electric Co., Ltd., Richibucto	13	"	"		350	350
	The King Lumber Co., Ltd., Chipman	14	"	"	3	250	280
	The Woodstock Electric Railway, Light and Power Co	15	"	"	40	2,500	2,900
	The Shediac Electric Light and Power Co	16	"	"		400	400
	The Eastern Electric and Development Co., Ltd., Sackville	17	"	"	4	5,000	5,040
	The Eastern Electric and Development Co., Ltd., Port Elgin	18	"	"		1,000	1,000
	The Maine and New Brunswick Electric Power Co., Ltd., Aroostook.	19	"	"	1	180	190
	Corporation of Campbellton	20	"	"	22	600	820
	The St. Leonards Electric Co., Ltd	21	"	"		250	250
	The Town of Edmundston	22	"	"		150	150
Halifax.....	The Halifax Electric Tramway Co., Ltd	1	C.I.R., Halifax	"	386	60,279	64,139
	The Town of Shelburne Electric Light Works	2	"	"		1,000	1,000
	The Edison Electric Light and Power Co., Ltd., Spring Hill	3	"	"		3,500	3,500
	Bear River and Digby Electric Light, Heating and Power Co., Ltd..	4	"	"		500	500
	The Town of Annapolis Royal Electric Light Works	5	"	"		1,400	1,400
	John Daley, Digby	6	"	"		900	900
	The Town of Liverpool	7	"	"	30	2,500	2,800
	The Town of Bridgewater Electric Light Plant	8	"	"		3,200	3,200
	Acadia Electric Light Co., Wolfville	9	"	"		4,000	4,000
	Logan & Co., Shubenacadie	10	"	"		300	300
	Windsor Electric Light and Power Co., Ltd	11	"	"		4,050	4,050
	The Kentville Electric Light and Power Co., Ltd	12	"	"		2,300	2,300

APPENDIX J—*Continued.*

STATEMENT showing the Electric Light Companies registered under the Electric Light Inspection Act, during the Fiscal Year ended March 31, 1912—*Continued.*

Districts.	Name of Company.	Serial Number.	By whom Certificate Issued.	Certificate for Fiscal Year.	Number of Lights. Arc.	Incandescent.	Totals.
Halifax	The Town of Parrsboro Electric Light	13	C.I.R., Halifax	1911-12		1,000	1,000
	The Bridgetown Electric Light and Power Co., Ltd	14	"	"		886	886
	Dartmouth Electric Light, Heating and Power Co., Ltd	15	"	"		3,500	3,500
	Lunenburg Gas Co., Ltd	16	"	"		3,000	3,000
	The Chambers' Electric Light and Power Co., Ltd., Truro	17	"	"		6,500	6,500
	The Yarmouth Street Railway Co., Ltd	18	"	"	6	4,300	4,360
	Oxford Electric Co., Ltd	19	"	"		500	500
	Canada Electric Co., Amherst	20	"	"		9,000	9,000
	The Water Commission, Town of Mahone Bay	21	"	"		650	650
	Town of Middleton Electric Light Works	22	"	"		700	700
	Nova Scotia Steel and Coal Co., Ltd., Trenton	1	C.I.R., Pictou	"	15	500	650
	Corporation of the Town of Pictou	2	"	"	35	4,000	4,350
	Antigonish Electric Co	3	"	"		800	800
	Acadia Coal Co., Ltd., Stellarton	4	"	"	14	1,053	1,193
	Pictou County Electric Co., Ltd., New Glasgow	5	"	"	53	12,779	13,309
	Inverness Railway and Coal Co	6	"	"	6	1,041	1,101
	Port Hood Richmond Railway Coal Co., Ltd., Port Hood	7	"	"		575	575
	Town of Glace Bay	8	"	"	4	10,000	10,040
	Sydney Mines Electric Co., Ltd	9	"	"	2	3,382	3,462
	Cape Breton Electric Co., Ltd., Sydney	10	"	"	59	17,620	18,210
	Cape Breton Electric Co., Ltd., North Sydney	11	"	"	32	4,394	4,714
	Sydney and Glace Bay Railway Co., Ltd., Sydney	12	"	"			
Charlottetown	Montague Electric Co., Ltd	1	C.I.R., Charlottetown	"		400	400
	Sun Electric Co., Ltd., Summerside	2	"	"	15	1,800	1,950
	Charlottetown Electric Light and Power Co., Ltd	3	"	"	117	20,000	21,170
	Phil Bernard, Tignish	4	"	"		250	250
Winnipeg	Kaministiquia Power Co., Ltd	1	C.I.R., Port Arthur	"			
	Rainy River Electric Light Co	2	"	"	20	2,000	2,200
	The Dryden Lumber and Power Co., Ltd	3	"	"		450	456
	Corporation of Town of Kenora	4	"	"	100	1,300	1,400

	Corporation of the Town of Dauphin	1	C.I.R., Winnipeg	"	23	6,000	6,230
	Corporation of the Town of Morden	2	"	"		2,000	2,000
	The Town of Boissevain	3	"	"	5	1,823	1,873
	Corporation of the Town of Carman	4	"	"	7	2,400	2,470
	The Central Electric and Gas Co., Ltd., Portage La Prairie	5	"	"	47	5,000	5,470
	Selkirk Electric Light and Power Co., Ltd	6	"	"		2,000	2,000
	The Winnipeg Electric Railway Co	7	"	"	399	275,769	279,759
	The Brandon Electric Light Co., Ltd	8	"	"	40	25,000	25,400
	Corporation of the Town of Neepawa	9	"	"	25	3,500	3,750
	The Town of Carberry	10	"	"	22	1,350	1,570
	The Minnedosa Power Co	11	"	"		3,500	3,500
Regina	Estevan Electric Light Works	1	C.I.R., Moosejaw	"		1,100	1,100
	Corporation of the City of Moosejaw	2	"	"	82	25,000	25,820
	Corporation of the Town of North Battleford	3	"	"	26	2,000	2,260
	Town of Indian Head	4	"	"	36	4,000	4,360
	Battleford Municiple Electric Light Plant	5	"	"	21	1,500	1,710
	Corporation of the City of Saskatoon	6	"	"	70		700
	Corporation of the City of Prince Arthur	7	"	"	84	8,000	8,840
	Corporation of the City of Regina	8	"	"	150	35,000	36,500
	Town of Weyburn	9	"	"	25	6,000	6,250
Edmonton	City of Calgary	1	C.I.R., Calgary	"	264	34,028	36,668
	Calgary Water Power Co., Ltd	2	"	"		25,000	25,000
	City of Edmonton	3	"	"	200	40,000	42,000
	City of Lethbridge	4	"	"	53	12,000	12,530
	Corporation of the City of Strathcona	5	"	"	85	7,000	7,850
	Town of Lacombe	6	"	"	16	1,200	1,360
	The Municipality of the Corporation of Wetaskiwin	7	"	"	23	4,500	4,730
	Town of Camrose	8	"	"		1,200	1,200
	Town of Fort Saskatchewan	9	"	"	3	2,000	2,030
	Town of High River	10	"	"	37	1,350	1,720
	Town of Macleod	11	"	"	15	3,000	3,150
	Canada West Coal Co., Ltd., Taber	12	"	"		58	58
	The Canadian Coal Consolidated Ltd., Frank	13	"	"	10	1,100	1,200
	Corporation of the Town of Nanton	14	"	"	7	1,200	1,270
	Municipality of the Town of Claresholm	15	"	"	11	1,800	1,910
	The Vegreville Electric Light and Power Co	16	"	"	4	750	790
	The Rocky Mountains Cement Co., Blairmore	17	"	"	3	1,000	1,030
	The Knight Sugar Co., Ltd., Raymond	18	"	"		935	935
	International Coke and Coal Co., Ltd., Coleman	19	"	"	5	700	750
	Corporation of the Town of Pincher Creek	20	"	"		1,470	1,470
	The Western General Electric Co., Ltd., Red Deer	21	"	"	15	2,500	2,650
Vancouver	British Columbia Electric Railway Co., Ltd., Vancouver and District	1	C.I.R., Vancouver	"	1,505	363,976	379,026
	British Columbia Electric Railway Co., Ltd. North Vancouver	2	"	"	100	18,627	19,627
	British Columbia Electric Railway Co., Ltd., Chilliwack	3	"	"	1	2,624	2,634
	British Columbia Electric Railway Co., Ltd., Steveston	4	"	"	3	2,078	2,108
	British Columbia Electric Railway Co., Ltd., Ladner	5	"	"		1,603	1,603
	City of Revetstoke	6	"	"	53	6,000	6,530

APPENDIX J—*Continued.*

STATEMENT showing the Electric Light Companies Registered under the Electric Light Inspection Act, during the Fiscal Year ended March 31, 1912—*Continued.*

Districts.	Name of Company.	Serial Number.	Certificate by whom Issued.	Certificate for Fiscal Year.	Number of Lamps.		
					Arc.	Incandescent.	Totals.
Vancouver	City of New Westminster	7	C. I. R., Vancouver	1911-12	170	23,000	24,700
	The City of Fernie	8	"	"	12	7,000	7,120
	City of Kamloops	9	"	"	35	6,000	6,350
	Cranbrook Electric Light Co. Ltd	10	"	"		4,820	4,820
	The Ashcroft Water, Electric & Improvement Co.	11	"	"		1,000	1,000
	City of Vernon	12	"	"	35	2,000	2,350
	Greenwood City Waterworks Co	13	"	"	6	1,500	1,560
	Kootenay Electric Co. Ltd., Kaslo	14	"	"		950	950
	City of Kelowna	15	"	"	25	2,500	2,750
	The Rossland Water & Light Co. Ltd	16	"	"	30	5,661	5,961
	City of Prince Rupert	17	"	"		225	225
	Municipality of Summerland	18	"	"		1,000	1,000
	Municipality of Peachland	19	"	"		550	550
	The Municipality of Spallumcheen	20	"	"	1	2,500	2,510
	Corporation of the City of Nelson	21	"	"	10	8,000	8,100
	Western Canada Power Co. Ltd., Vancouver	22	"	"			
	The Crow's Nest Pass Electric Light & Power Co. Ltd., Michel	23	"	"	34	1,300	1,640
	The Crow's Nest Pass Electric Light & Power Co. Ltd., Coal Creek	24	"	"		601	601
	The Cascade Water Power & Light Co. Ltd	25	"	"			
	Moyie Telephone & Electric Light Co. Ltd	26	"	"		225	225
	The Mission Water, Light & Power Co	27	"	"			
	The Daly Reduction Co. Ltd., Hedley	28	"	"		250	250
	The Consolidated Mining & Smelting Co. of Canada, Trail	29	"	"	17	1,527	1,697
	Merritt Water, Light & Power Co. Ltd	30	"	"	1	409	410
	Adams River Lumber Co. Ltd., Chase	31	"	"	1	250	260
	Sandon Water Works & Light Co	32	"	"	1	403	413
	City of Grand Forks	33	"	"	19	3,025	3,215
Victoria	Cumberland Electric Light Co.	1	C. I. R., Victoria	"	4	2,200	2,240
	Nanaimo Electric Light, Power & Heating Co. Ltd.	2	"	"	58	5,500	6,080
	Victoria Electric Co	3	"	"		115	115

	British Columbia Electric Railway Co. Ltd., Victoria	4	"	"	61	107,201	107,811
	Pemberton & Son, Victoria	5	"	"	2	700	720
Dawson	Yukon Electric Co. Ltd., White Horse	1	C. I. R., Dawson	"		80	80

INLAND REVENUE DEPARTMENT
OTTAWA, June 1, 1912.

W. J. GERALD.
Deputy Minister.

APPENDIX K.

STATEMENT showing the amount of Electrical Energy, Gas, or Fluid generated or produced for export and for consumption in Canada, under the authority of the Electricity and Fluid Exportation Act, for the fiscal year ending March 31, 1912.

Name of Contractor and Place of Business.	Month.	Units Generated or Produced for Export.	Units Generated or Produced for Consumption in Canada.	Total Output of Generating Station or other source.	Remarks.
Ontario and Minnesota Power Company—Fort Frances, Ont.	April, 1911	1,488,975	103,090	1,592,065	
	May "	1,588,095	103,333	1,691,428	
	June "	1,607,730	95,587	1,703,317	
	July "	1,433,640	99,895	1,533,535	
	August "	1,726,470	118,005	1,844,475	
	September "	1,600,380	124,310	1,724,690	
	October "	1,623,191	120,948	1,744,139	
	November "	1,535,880	126,642	1,662,522	
	December "	1,517,840	138,463	1,656,303	
	January, 1912	1,638,710	142,222	1,780,932	
	February "	1,524,149	121,337	1,645,486	
	March "	1,635,113	113,972	1,749,085	
	Totals	18,920,173	1,407,804	20,327,977	
Canadian Niagara Power Co., Niagara Falls, Ont.	April, 1911	24,574,930	1,128,170	25,703,100	
	May "	23,572,330	1,066,670	24,639,000	
	June "	22,888,010	999,590	23,887,600	
	July "	23,657,020	611,380	24,268,400	
	August "	22,818,370	654,230	23,472,600	
	September "	23,005,210	800,590	23,805,800	
	October "	24,040,500	1,003,400	25,043,900	
	November "	24,753,350	1,108,250	25,861,600	
	December "	25,217,880	1,056,520	26,274,400	
	January, 1912	26,083,650	1,193,950	27,277,600	
	February "	26,031,430	1,110,170	27,141,600	
	March "	28,482,370	1,170,630	29,653,000	
		295,125,050	11,903,550	307,028,600	

The Electrical Development Company of Ontario, Niagara Falls, Ont.	April, 1911	1,697,000	9,866,735	11,563,735
	May, "	616,500	10,182,710	10,799,210
	June, "	277,100	9,815,188	10,092,288
	July, "	.....	9,878,798	9,878,798
	August, "	.....	10,411,412	10,411,412
	September, "	.....	10,834,825	10,834,825
	October, "	.....	11,475,113	11,475,113
	November, "	.....	12,038,730	12,038,730
	December, "	.....	12,809,477	12,809,477
	January, 1912	252,000	13,109,687	13,361,687
	February, "	3,024,000	12,454,677	15,478,677
	March, "	2,408,000	12,596,422	15,004,422
	Totals	8,274,600	135,473,774	143,748,374
Ontario Power Company, Niagara Falls, Ont.	April, 1911	15,862,470	14,134,630	29,997,100
	May, "	15,464.575	14,653,625	30,118,200
	June, "	15,438,545	14,732,755	30,171,300
	July, "	15,686,638	14,971,762	30,658,400
	August, "	16,474,110	13,831,790	30,305,900
	September, "	17,103,500	14,721,000	31,824,500
	October, "	18,047,050	15,763.350	33,810,400
	November, "	18,547,580	17,528,420	36,076,000
	December, "	19,488,040	18,877,360	38,365,400
	January, 1912	21,270,525	19,879,675	41,150,200
	February, "	20,418,049	19,526,151	39,944,200
	March, "	19,857,159	21,038,241	40,895,400
	Totals	213,658,241	199,658,759	413,317,000
Maine and New Brunswick Electrical Power Co., Aroostook Falls, N.B	April, 1911	145,463	3,537	149,000
	May, "	141,133	3,216	144,349
	June, "	107,968	3,332	111,300
	July, "	131,100	2,598	133,698
	August, "	148,400	3,359	151,759
	September, "	168,638	4,662	173,300
	October, "	185,164	6,136	191,300
	November, "	191,119	5,081	196,200
	December, "	196,732	7,068	203,800
	January, 1912	199,202	6,398	205,600
	February, "	188,320	5,280	193,600
	March, "	199,318	4,982	204,300
	Totals	2,002,557	55.649	2,058,206

APPENDIX K.

STATEMENT showing amount of Electrical Energy, Gas, or Fluid generated or produced for export and for consumption in Canada, under the authority of the Electricity and Fluid Exportation Act, for the fiscal year ending March 31, 1912.

Name of Contractor and Place of Business.	Month.	Units Generated or Produced for Export.	Units Generated or Produced for Consumption in Canada.	Total Output of Generating Station or other source.	Remarks.
British Columbia Electric Railway Company, Vancouver, B.C.	April, 1911	Export not commenced till Dec. 1911.	No return.	No return.	
	May "		6,557,325	6,557,325	
	June "		6,243,372	6,243,372	
	July "		6,675,151	6,675,151	
	August "		7,318,457	7,318,457	
	September "		7,845,012	7,845,012	
	October "		8 394,517	8,394,517	
	November "		8,538,057	8,538,057	
	December "	10,360	8,876,905	8,887,265	
	January, 1912	19,490	8,978,953	8,998,443	
	February "	18,210	892,686	910,896	
	March "	16,760	9,832,161	9,848,921	
	Totals	64,820	80,152,596	80,217,416	
Western Canada Power Co., Vancouver, B.C.	April, 1911	Export not commenced till January 1912.			
	May "				
	June "				
	July "				
	August "				
	September "				
	October "				
	November "				
	December "				
	January, 1912	3,840	164,660	168,500	
	February "	17,664	317,836	335,500	
	March "	9,456	672,051	681,507	
	Totals	30,960	1,154,547	1,185,507	

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

APPENDIX L.

Statement showing total amount of Electrical Energy expressed in Kilowatt Hours and Horse Power Years, Generated for Export and for Consumption in Canada, by the Hydro-Electric Companies during the Fiscal year ended March 31, 1912.

Name of Contractor.	Place of Business.	Units Generated for Export.		Units Generated for Consumption in Canada.		Total Output of Generating Station or other Sources.	
		Kilowatt Hours.	H. P. Years.	Kilowatt Hours.	H. P. Years.	Kilowatt Hours.	H. P. Years.
Ontario & Minnesota Power Co	Fort Frances, Ont.	18,920,173	2,895.22	1,407,804	215.42	20,327,977	3,110.64
Canadian Niagara Power Co.	Niagara Falls, Ont.	295,125,050	45,160.95	11,903,550	1,821.52	307,028,600	46,982.47
Electrical Development Co	" " "	8,274,600	1,266.25	135,473,774	20,730.62	143,748,374	21,996.87
Ontario Power Co.	" " "	213,658,241	32,694.65	199,658,759	30,552.47	413,317,000	63,247.12
†Electric Distributing Co.	Windsor, Ont.	.....	.....	.....	.....	.....	.....
*Sherbrooke Ry. & Power Co	Sherbrooke, Que.	.....	.....	.....	.....	.....	.....
Maine & New Brunswick Electric Power Co.	Aroostook Falls, N.B.	2,002,557	306.44	55,649	8.51	2,058,206	314.95
British Columbia Electric Ry. Co.	Vancouver, B.C.	⊙64,820	⊙9.92	80,152,596	12,265.20	80,217,416	12,275.12
‡Western Canada Power Co.	" "	30,960	4.74	1,154,547	176.67	1,185,507	181.41
	Totals.	536,076,401	82,338.17	429,806,679	65,770.41	967,883,080	148,108.58

† No plant installed yet, though export license was issued in June, 1911.
* License issued in December, 1911, but nothing was exported during the above fiscal year.
⊙ For last four months only of fiscal year, as export did not start till December, 1911.
‡ For last three months only of fiscal year, as export did not start till January, 1912.

INLAND REVENUE DEPARTMENT,
OTTAWA, June 1, 1912.

W. J. GERALD,
Deputy Minister.

REPORTS, RETURNS AND STATISTICS

OF THE

INLAND REVENUES

OF THE

DOMINION OF CANADA

FOR THE FISCAL YEAR ENDED MARCH 31

1912

PART III

ADULTERATION OF FOOD

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST
EXCELLENT MAJESTY
1912

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REPORT

OF THE

DEPUTY MINISTER OF INLAND REVENUE

To the Hon. W. B. Nantel,

Minister of Inland Revenue.

SIR,—I have the honour to submit herewith a statement showing the work done by the Chief Analyst and staff at Ottawa for the year ending March 31, 1912.

Description.	Genuine.	Doubtful.	Adulterated	Sold as Compound.	Total.
Black Antimony	39	17	21	0	77
Canned Corn	146	0	0	0	146
Fertilizers	137	20	*4	0	161
Olive Oil	139	0	13	0	152
Bran, Shorts, Chop Feed	262	21	14	†1	298
Marmalades	138	‡2	§14	0	154
Sweet Spirit of Nitre	42	0	32	0	74
Vinegars	151	0	0	0	151
Ground Ginger	127	10	14	.....	151
					1364
A study of Maple Syrup	.....	.....	.....	.....	456
Headache Powders	.....	.....	.....	.....	300
Coca-Cola	.....	.....	.....	.....	68
					2188

* Not registered. † Cotton Seed Meal. ‡ Destroyed. § Contain Glucose.

Since my report of last fiscal year much work has been done in connection with the legalizing of further standards for food products and it is hoped that, at an

early date, the data secured will be sufficient to enable the Department to recommend the fixing of standards therefor. The Chief Analyst, in his report, refers to the classes of food in connection with which further investigation has been made.

The standards already established cover Milk and its products; Grain products, Meat and meat products, Beverages, Maple Sugar and Maple Syrup.

I have the honour to be, Sir,
Your obedient servant,

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, August 21, 1912.

REPORT OF THE CHIEF ANALYST.

OTTAWA, August 15, 1912.

W. J. GERALD, Esq.,
Deputy Minister,
Inland Revenue Dept.,
Ottawa.

SIR,—I beg to report as follows upon the work of this laboratory for the fiscal year ending March 31, 1912.

During this period 2,188 samples were collected by our inspectors in the regular way, and are recorded in this report.

The results of analysis are detailed in Bulletins 225 to 236, both inclusive, as follows:—

Number of Bulletin.	Subject.	Number of Samples.
225	Black Antimony	77
226	Canned Corn	146
227	Fertilizers, 1911	161
228	Maple Syrup	456
229	Olive Oil	152
230	Headache Powders	300
231	Stock Feed	298
232	Coca-Cola (Syrup)	68
233	Marmalades	154
234	Sweet Spirit of Nitre	74
235	Vinegars	151
236	Ground Ginger	151
		2188

In addition to the above, there have been performed the following occasional analysis during the year:—

Acetic Acid	46
Beer	24
Butter	11
Burnt Alum	1
Bonbons	1
Brandy	1
Cream	7
Cotton seed meal	1
Cheese	1
Cubeb cigarettes	1
Celery salt	1
Cream of Tartar	4
Corned beef	1
Corn	24
Coal oil	1

Chicken feed	1
Cinnamon bark	1
Essences	7
Fusel oil	7
Flour	2
Fertilizers	22
Froutron biscuits	3
Flannel	3
Fullers earth	4
Gopher poison	1
Hop tonic	1
Honey	4
Jam	3
Lead arsenate	2
Linseed oil	5
Lard	36
Lime juice	1
Licorice	1
Maple syrup	15
Maple sugar	4
Malt extract	1
Milk	24
Molasses	3
Malt	1
Pepper	7
Paint material	7
Porter	2
Stock feed	2
Scotch whiskey	1
Spirits	2
Sugar	3
Turpentine	3
Tea	1
Vinegars	56
Vinegars. (Excise)	449
Vin Mariani	1
Water	38
White lead	1
Wine	2
	852
Samples collected by our inspectors	2188
Occasional samples	852
	3040

The total number of analyses made is, therefore, 3,040.

The following solutions have been prepared and supplied for the use of excise officers, in vinegar testing:—

Normal soda	81 winchesters.
Standard Phenolphthalein	15 bottles.
Normal Sulphuric Acid	3 "

Although no new Standards for Foods have been put in force during the year, much important work has been done towards the completion of Standards, especially for the following classes of food:—Spices (Pepper, Cloves, Mustard, Ginger), Flavor-

ing Extracts (Lemon, Vanilla), Baking Powders, Cream of Tartar, Lime Juice, Acetic Acid, Canned Tomatoes, Table Salt, Vinegar, Oysters and Olive Oil; Linseed Oil and Turpentine have also been studied with a view to their legal definition.

The published work of these laboratories is contained in Bulletins 225 to 236, which are attached to this report.

All that is necessary to be said in connection with this work is stated in the introductory letter prefacing each bulletin.

Special attention should be called to Bulletin No. 228, which contains a study of Maple Syrup. Consequent upon this extended research it has been found necessary to make slight alterations in the standards established for Maple Syrups and Sugars, as in force from April 25, 1911 (G. 961).

The revised standards (published as Circular G. 994), are appended to this report.

Bulletin No. 230, dealing with Headache Powders, owes its definiteness to the Patent or Proprietary Medicine Act, under which it has been found possible to set limits, to the amount of certain drugs, which may be present in remedies of the kind without notification of the fact upon the label.

The total number of samples analysed during the year is much smaller than in previous years. This is partly due to the nature of the work, and partly to the existence of two vacancies on the staff, which it is hoped will shortly be filled.

In order to secure trustworthy data for an opinion as to the character of foods and drugs, as these appear in the markets of Canada, it is necessary that at least from 5,000 to 10,000 samples should be examined annually.

It is particularly necessary that articles sold in broken packages or in bulk, should be examined in large numbers, as these offer greatest facilities for adulteration.

It is to be remembered, however, that, while the greatest part of our work in connection with the administration of the Adulteration Act, is of a police or inspectorial character, a very considerable part of it has had special regard to the securing of data for the fixation of standards; and this necessarily involves much greater expenditure of time and labour.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

DEPARTMENT OF INLAND REVENUE,
OTTAWA, March 22, 1911.

MEMORANDUM.

Under the authority of an Order of His Excellency in Council bearing date the 20th instant, and in virtue of the provisions of the twenty-sixth section of the 'Adulteration Act,' the following standards of quality have been established for 'Maple Sugar and Maple Syrup':—

MAPLE SUGAR.

Maple Sugar is the solid product resulting from the evaporation of maple sap, or of maple syrup, and contains not more than ten (10) per cent of water. It yields not less than five-tenths (0·5) of one per cent of ash, reckoned on the dry matter of the sugar. It yields not less than four-tenths (0·4) of one per cent of malic acid, reckoned on the dry matter, when worked by the method No. 1, described below; not less than two and two-tenths (2·2) as *Lead Subacetate Number,* when worked as described under method 2, below.

Method No. 1.—Six and seven-tenths grammes of the sample is weighed into a 200cc. beaker and water added to make a volume of 20cc. The solution is made slightly alkaline with ammonia, 1cc. of a ten per cent solution of calcium chloride is added; then 60cc. of 95 per cent alcohol. The beaker is covered with a watch glass and heated for one-half hour on a water bath, when the flame is turned off and the beaker left to stand over night. The material in the beaker is then filtered through a good quality filter paper, the precipitate washed with hot 75 per cent alcohol to freedom from soluble calcium salt, dried and ignited. From 15 to 20 cc. of tenth normal hydrochloric acid is added to the ignited residue, the lime thoroughly dissolved by careful boiling, and the excess of acid titrated with tenth normal sodium hydroxide, using methyl orange as an indicator. One-tenth of the number of cubic centimeters of acid neutralized express the result, which for the present will be called 'Malic Acid Value.'

Method No. 2.—Five grammes (5) of sugar is dissolved in water, to a volume of 20cc. Two (2) ccs. of a solution of subacetate of lead is added, and the solutions thoroughly mixed. After standing for two (2) hours, the precipitate is filtered off, using a Grooch crucible or a sugar tube packed with asbestos, and washed four or five times with hot water, using the suction pump, dried and weighed. The weight of the dry precipitate in grammes is multiplied by 22·22. The product is the *Lead Subacetate Number.*

Mode of preparation of Solution of Subacetate of Lead, as follows:—

Boil for half an hour 430 grammes of normal lead acetate and 130 grammes of litharge with 1000cc. water. Cool the mixture, allow to settle, and dilute the supernatant liquid to 1·26 specific gravity.

Maple Syrup is syrup made by the evaporation of maple sap, or by the solution of maple concrete in water; and contains not more than thirty-five (35) per cent of water. The ash and *Lead Subacetate Number* expressed as percentages on the syrup when multiplied by $^{100}/_{65}$ must be equal to the corresponding standard for maple sugar.

NOTE.—In determining the Lead Subacetate Number of maple syrup, the solution of five (5) grammes of syrup in water must be boiled to expel carbon dioxide, which might be present as a fermentation product, and the boiled and cooled liquid made up to 20 cbc. The weight of the lead precipitate found may be multiplied by 30·77 to give the 'Lead Subacetate Number,' which must be not less than 2·2.

The standards above defined take effect on the 25th day of April prox.

W. J. GERALD,
Deputy Minister.

DEPARTMENT OF INLAND REVENUE,
OTTAWA, November 8th, 1911.

MEMORANDUM.

Under the authority of an Order of His Royal Highness, in Council, bearing date the twenty-seventh day of October last, the Order in Council of the 20th March, 1911, establishing standards, under the provisions of the twenty-sixth section of the Adulteration Act for Maple Sugar and Maple Syrup, is repealed, and the following standards are now established:—

MAPLE SUGAR.

Maple Sugar is the solid product resulting from the evaporation of maple sap, or of maple syrup, and contains not more than ten (10) per cent of water. It yields not less than six-tenths (0·6) of one per cent of ash, reckoned on the dry matter of the sugar when incinerated in such a way as to assure the earths being present as salts and not as oxides, and not less than twelve one-hundredths (0·12) of one per cent of ash, insoluble in water, employed as described below. It yields not less than three-tenths (0·3) per cent of malic acid, reckoned on the dry matter, when worked as described below. It yields a *lead number* not less than one and seven-tenths (1·7) when worked by the Canadian method, nor less than one and two-tenths (1·2) when worked by the Winton method, as described below.

MAPLE SYRUP.

Maple Syrup is syrup made by the evaporation of maple sap, or by the solution of maple concrete in water, and contains not more than thirty-five (35) per cent of water. The dry substance of maple syrup shall meet all the above standards for maple sugar.

Methods of Working.

Water in maple sugar shall be determined by heating to 100° C. five (5) grammes of the finely powdered sugar, spread upon a watch glass, to constant weight. The loss of weight shall be reckoned as water.

Water in maple syrup shall be determined by drying five (5) grammes of the syrup, on asbestos fibre or in admixture with sand, to constant weight, at a temperature not exceeding 100° C. The loss of weight shall be reckoned as water.

Total Ash in both maple sugar and maple syrup shall be determined by gentle ignition of five (5) grammes in platinum, to the point of incipient charring, after which, ignition to constant weight shall be completed in a muffle, at as low a temperature as possible. The resultant ash is then treated with ammonium carbonate in solution, dried and gently ignited, when the weight should remain unchanged.

Insoluble Ash is determined by treating the total ash with 40 cc. of hot water, and gently boiling for two minutes. The contents of the dish are then thrown upon a small, ashless filter, and washed with hot water till the total filtrate amounts to 100 cc.

Malic Acid.—Six and seven-tenths (6·7) grammes of the dry sugar, or its equivalent amount in syrup, is weighed into a 200 cc. beaker and water added to make a volume of 20 cc. The solution is made slightly alkaline with ammonia. 1 cc. of a ten per cent solution of calcium chloride is added, then 60 cc. of 95 per cent alcohol. The beaker is covered with a watch glass and heated for one half-hour on a water bath, when the flame is turned off and the beaker left to stand over night. The material in the beaker is then filtered through a good quality filter paper, the precipitate washed with hot 75 per cent alcohol to freedom from soluble calcium salt, dried and ignited. From 15 to 20 cc. of tenth normal hydrochloric acid is added to the

ignited residue, the lime thoroughly dissolved by careful boiling, and the excess of acid titrated with tenth normal sodium hydroxide, using methyl orange as an indicator. One-tenth of the number of cubic centimeters of acid neutralized express the result, which for the present will be called 'Malic Acid Value.'

LEAD NUMBER—CANADIAN METHOD.

Five (5) grammes of the dry sugar, or its equivalent in syrup, is dissolved in water, to a volume of 20 cc. Two (2) cc'c of a solution of sub-acetate of lead is added, and the solutions thoroughly mixed. After standing for two hours, the precipitate is filtered off, using a Gooch crucible or a sugar tube packed with asbestos, and washed four or five times with hot water, using the suction pump, dried and weighed. The weight of the dry precipitate in grammes is multiplied by 20. The product is the *Lead Subacetate Number.*

Mode of preparation of solution of Subacetate of Lead is as follows:—

> *Boil for half an hour 430 grammes of normal lead acetate and 130 grammes of lithage with 1000 cc. water. Cool the mixture, allow to settle, and dilute the supernatant liquid to 1·26 specific gravity.*

WINTON METHOD.

Twenty-five (25) grammes of dry sugar, or its equivalent in syrup, is transferred to a 100 cc. flask with water. Add 25 cc. of the standard lead acetate solution and shake; fill to the mark, shake and allow to stand at least three hours before filtering. From the clear filtrate, pipette off 10 cc. to a 250 cc. beaker, add 40 cc. of water and 1 cc. of concentrated sulphuric acid; shake and add 100 cc. of 95 per cent alcohol. Let stand over night, filter on a tared Gooch crucible, wash with 95 per cent alcohol, dry in a water oven and ignite over a Bunsen burner, applying the heat gradually at first. Cool and weigh. Subtract the increase in weight of lead sulphate from the weight of the blank. Multiply the difference by the factor 27·325. The determination of the blank is made as follows:—

Transfer 25 cc. of the standard lead acetate solution to a 100 cc. flask, add a few drops of acetic acid and make up the whole to the mark with water. Shake and use 10 cc. for the determination of lead, as directed in the preceding section.

NOTE 1.—If the maple syrup samples have undergone fermentation in any degree, the carbonic acid must be boiled off before adding the lead acetate solution. This with either of the above methods.

2. If crystallization of sugar has taken place in maple syrup samples, this must be redissolved by gently warming the sample before proceeding with the analysis.

The standards above defined take effect on the 27th instant.

W. J. GERALD,
Deputy Minister.

The Honourable
The Minister of Inland Revenue.

MEMO.

The standard lead acetate solution for Winton method is made by diluting one volume of the solution of sub-acetate of lead with four (4) volumes of water and filtering.

APPENDIX A.

BULLETIN No. 225—BLACK ANTIMONY.

OTTAWA, July 18, 1911.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—Some time ago representations were made to this Department to the effect that the drug known as Black Antimony was grossly adulterated. In consequence of this, a collection of 77 samples was made during March, April and May of this year, and the following report gives the results of their examination; and it will be seen that the charges of gross adulteration are fully sustained. The following synopsis gives these results in brief:—

	Samples.
Adulterated, as containing no antimony	21
Very impure sulphide of antimony	9
Impure sulphide of antimony	8
Sulphide of antimony	39
	77

Black Antimony is not defined by the British Pharmacopoeia; but the purified sulphide is defined as Antimonium Nigrum Purificatum. This is the crude sulphide separated from siliceous material and from arsenical compounds.

Neither is Black Antimony found in the United States Pharmacopoeia, since 1890. In the seventh decennial revision of the U.S.P. it is thus described:—

'Native Antimony Sulphide, purified by fusion, and as free from arsenic as possible.'

Under the designated tests it is required to dissolve in hydrochloric acid, without leaving more than one (1) per cent of residue. The United States National Dispensatory, 5th Edition, p. 223, describes it as dissolving in 10 parts of hydrochloric acid, without leaving more than 1 per cent of residue.

Finlay Dun (Veterinary Medicines, 9th Edition, p. 246), says:—'The sulphide, or stibnite, the most abundant ore of antimony, when purified by fusion, occurs in dark-grey, metallic, heavy brittle cakes, or as a heavy grey black, crystalline powder, devoid of odour and taste, insoluble in water, and known as black, or crude antimony.'

Black antimony is not now employed in human medicine, but is very largely used as an alterative and anthelmintic for horses and cattle; and is an ingredient of very many condition powders.

From what I have said, it is apparent that no exact standard of purity exists for this article. It is, however, quite certain that it should be essentially the sulphide of antimony, known as stibnite; and I have no hesitation in describing the samples examined as adulterated when they contain no antimony whatever. This is the case with 21 samples, or 27 per cent of the entire collection. Where foreign matter to the extent of nearly 50 per cent is present, I have declared the samples to be *very impure*; and where more than 5 per cent of matters insoluble in hydrochloric acid is found, as *impure*.

It is quite evident that many of the adulterated samples, consisting as they do of metallic iron, silica and carbon (graphite) have had an origin such as to preclude the possibility of any honestly mistaken intent; and are entirely and knowingly frauds, not necessarily known as such to the immediate vendor, but certainly known to the original producer.

I beg to recommend publication of this report as Bulletin No. 255.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 225—BLACK ANTIMONY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Residue insoluble in HCl.	Antimony.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
DISTRICT OF NOVA SCOTIA—R. J. WAUGH—INSPECTOR.												
1911.									p.c.			
Apr. 18	Black Antimony..	42271	G. C. McDougall, Kentville, N.S.	1½ lb.	30	Unknown.....	.....	.....	1·00	....	42271	Essentially sulphide of antimony.
" 20	"	42272	L. C. Gardener, Yarmouth, N.S	1½ "	25	"	N. D. & C. Co., Halifax, N.S.	.....	1·55	.....	42272	" "
" 24	"	42273	Nat. Drug & Chem. Co., Halifax, N.S	1½ "	25	"	N. D. & C. Co., Montreal.	.....	2·05	..	42273	" "
" 24	"	42274	Brown Bros. & Co. Halifax, N.S.	1½ "	30	"	N. D. & C. Co., Halifax.	.....	1·95	.....	42274	" "
" 25	"	42275	A. A. Thompson, Halifax, N.S.	1½ "	37	"	N. D. & C. Co., Halifax.	.....	1·30	....	42275	" "
DISTRICT OF PRINCE EDWARD ISLAND—THEO. MOORE—INSPECTOR.												
Apr 6	Black Antimony.	46051	J. G. Jamieson, Charlottetown.	1½ lb.	45	.....	Lymen & Sons, Montreal.	.....	1·40	.....	46051	Essentially sulphide of antimony.
" 7	"	46052	McKinnon Drug Co., Charl'town.	1½ "	45	.....	Lymans Ltd., Montreal.	.....	1·45	...	46052	" "
" 11	"	46053	J. C. Ferguson, Souris.	1½ "	45	.....	Nat. Drug Co., Halifax.	.....	6·00	...	46053	Impure sulphide of antimony.
" 24	"	46054	Keir & McFadyen, Kensington.	1½ "	40	.....	Nat. Drug & Chem. Co., St. John, N.B.	.....	21·00	...	46054	Highly impure sulphide of antimony.
" 25	"	46055	A. W. P. Gourlie, Summerside.	1½ "	45	.....	Nat. Drug Co., Halifax.	.....	52·30	None.	46055	Adulterated.

BULLETIN No. 225—BLACK ANTIMONY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Results of Analysis.		No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Residue insoluble in HCl.	Antimony.		
DISTRICT OF NEW BRUNSWICK—JAS. FERGUSON—INSPECTOR.												
1911.									p. c.			
Apr. 3	Black Antimony	45474	The Canadian Drug Co., Ltd., St. John, N.B.	1½ lb.	15	R. Hilliers Bros. & Co., New York, U.S.	.....	.....	1·90	...	45474	Essentially sulphide of antimony.
" 3	"	45475	A. C. Smith & Co., St. John, N.B.	1½ "	25	.....	Nat. Drug & Chem. Co. Ltd., St. John, N.B.	.....	43·90	None.	45475	Adulterated.
" 4	"	45476	E. Clinton Brown, St. John, N.B.	1½ "	65	.....	" "	.....	*27·60	"	45476	"
" 10	"	45477	R. T. Mack, Fredericton, N.B.	1½ "	60	.....	" "	Sold as commercial absolute purity not guaranteed.	40·40	"	45477	"
" 20	"	45478	Geo. O. Spencer, Moncton, N.B.	1½ "	38	.....	Canadian Drug Co. St. John, N.B	.....	†19·20	"	45478	"
DISTRICT OF QUEBEC—F. X. W. E. BELAND—INSPECTOR.												
Mar. 28	Black Antimony	36931	J. B. Morin, 318½ rue St. Joseph, Q.	½ lb.	13	Unknown	Dr. Ed. Morin & Cie.	.....	45·05	None.	36931	Adulterated.
" 30	"	36932	L. E Martel, 91 rue St. Joseph, Q.	1½ "	40	Lymans Ltd., Montreal.	Manufacturers....	.....	1·35	....	36932	Essentially sulphide of antimony.
" 31	"	36933	W. Brunet & Cie, 139 rue St. Joseph Q.	1½ "	15	Unknown.....	Unknown	.....	44·20	None.	36933	Adulterated.
Apr. 6	"	36934	Alph. Martineau, 374 rue St. Valier, Q.	1½ "	30	"	Dr. Ed. Morin & Cie.	.....	32·75	"	36934	"
" 7	"	36935	Joseph Masson, 508 rue St. Valier, Q.	1½ "	20	"	Nat. Drug Co., Montreal.	.....	97·90	"	36935	"

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU—INSPECTOR.

April 24	Black Antimony..	38945	Pharmacie Chevalier, Sorel.	1½	lb.	75	.....	Lyman Knox Co., Montreal.	.....	42·95	None.	38945	Adulterated.
May 2	" ..	38946	Dr. Vaillancourt, Waterloo.	1½	"	40	.....	" ..	.....	28·50	"	38946	"
" 4	" ..	38947	John West, Magog.	1¼	"	25	Unknown	Unknown	.....	74·35	"	38947	"
" 23	" ..	38948	Dr. Leduc, Marieville.	1¼	"	30	.....	Lyman Knox Co., Montreal.	.....	50·02	.....	38948	Very impure sulphide of antimony.
" 9	" ..	38949	A. J. Bedard, Richmond.	1¼	"	50	.....	Mr. Sutherland ..	.....	1·65	...	38949	Essentially sulphide of antimony.

DISTRICT OF MONRTEAL—J. J. COSTIGAN—INSPECTOR.

										p.c.			
April 6	Black Antimony..	40641	J. E. H. Quipp, 95 Windsor St., Montreal.	1½	lb.	50	Unknown	Unknown	.....	6·70	.....	40641	Impure sulphide of antimony.
" 6	" ..	40642	Joseph Contant, 221 Notre Dame East, Montreal.	1½	"	15	"	"	.....	39·05	.....	40642	Highly impure sulphide of antimony.
" 8	" ..	40643	St. Catherine Pharmacy, 20 St. Catherine St. W., Montreal.	1½	"	25	"	"	.....	1·85	.....	40643	Essentially sulphide of antimony.
" 20	" ..	40644	H. E. Archambault, 78 Notre Dame E., Montreal.	1½	"	30	.....	Lymans, Ltd., Montreal.	.....	1·25	...	40644	" "
" 20	" ..	40645	Nat. Drug & Chem. Co., Ltd., Montreal.	1½	"	23	.....	.....	.....	1·30	.....	40645	" "

DISTRICT OF OTTAWA—J. A. RICKEY—INSPECTOR.

Mar. 31	Black Antimony..	43241	D. J. Stalker, Druggist, Ottawa	1½	lb.	75	Unknown	Nat. Drug & Chem. Co., Ottawa.	.....	0·90	.....	43241	Essentially sulphide of antimony.
" 31	" ..	43242	T. Payment, Druggist Ottawa.	1½	"	75	"	Ottawa Drug Co., Ottawa.	.....	7·55	.....	43242	Impure sulphide of antimony.
" 31	" ..	43243	Beattie & Argue, Druggists, Ottawa.	1½	"	75	"	Nat. Drug & Chem. Co., Ottawa.	.....	94·20	None.	43243	Adulterated.

* Contains carbonate sol. matter principally lime and magnesia.
† Contains carbonate sol. matter principally lime and magnesia.

BULLETIN No. 225 - BLACK ANTIMONY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Results of Analysis.		No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Residue insoluble in HCl.	Antimony.		
DISTRICT OF OTTAWA—J. A. RICKEY—INSPECTOR—*Concluded.*												
1911.									p.c.			
April 1	Black Antimony..	43244	N. W. Campbell, Druggist, Ottawa	1½ lb.	75	Unknown	Ottawa Drug Co., Ottawa.	.. ..	3·10	.	43243	Essentially sulphide of antimony.
" 3	" .	43245	Wm. Johnston, Druggist, Smith's Falls.	1½ "	75	"	Lymans, Ltd., Montreal.	....	0·85	....	43244	" "
" 3	" ..	43246	L. A. Wilson, Druggist "	1½ "	75	"	Unknown	....	33·90	....	43245	Very impure sulphide of antimony.
DISTRICT OF KINGSTON—JAS. HOGAN—INSPECTOR.												
Mar. 24	Black Antimony..	47786	F. Hoag, Kingston.	½ lb.	20	....	N. C. Polson, Kingston.	.. ..	52·35	None.	47786	Adulterated.
" 27	" ..	47787	J. S. McKeown, Belleville.	1½ "	40	....	Nat. Drug Co....		57·75	...	47787	Highly impure sulphide of antimony.
" 27	" ..	47788	D. M. Waters, Belleville	1½ "	40	Unknown	....		0·70	..	47788	Essentially sulphide of antimony.
" 28	" ..	47789	McDermid & Jury, Peterboro.	1½ "	60	....	Lyman Bros., Toronto.	... .	4·30	. ....	47789	" "
" 28	" ..	47790	Warne Drug Co., Peterboro.	1½ "	60	....	Nat. Drug Co., Toronto.	. . . . .	95·80	None.	47790	Adulterated.

DISTRICT OF TORONTO—H. J. DAGER—INSPECTOR.

April 3	Black Antimony..	47292	Wm. Crossland, Barrie.	1½ lb.	75	.....	Drug Trading Co., Ltd., Toronto.	.....	1·20	.....	47292	Essentially sulphide of antimony.
" 3	" ..	47293	W. C. George, Orillia.	1½ "	60	.....	The Nat. Drug & Chem. Co., Ltd., Toronto.	.....	46·55	.....	47293	Very impure sulphide of antimony.
" 4	" .	47294	J. S. Fraleigh, Midland.	1½ "	35	Unknown	Unknown	.. ..	60·45	.....	47294	" "
" 5	" ..	47295	C. A. Nettleton, Penetang.	1½ "	35	"	"	.. ..	53·45	None.	47295	Adulterated.
" 7	" ..	47296	W. J. TuckDrug Co., Weston, Ont.	1½ "	40	.. ..	Lyman Bros. Co., Ltd., Toronto.	... .	3·55	.....	47296	Essentially sulphide of antimony.

DISTRICT OF LONDON—JNO. TALBOT—ACTING INSPECTOR.

April 26	Black Antimony..	48010	E. O Ritz, Berlin, Ont	½ lb.	25	Unknown	Unknown	....	0·45	.....	48010	Essentially sulphide of antimony.
" 26	" ..	48014	Clark Bros., Berlin, Ont.	½ "	15	"	"	.....	12·50	....	48014	Impure sulphide of antimony.
" 26	" ..	48016	A. J. Roos, Berlin, Ont.	½ "	10	"	"	.....	6·40	...	48016	" "
" 26	" ..	48021	Fred. C. Bond, Galt.	½ "	25	"	"	....	9·70	.....	48021	" "
" 26	" ..	48025	W. M. Kirkland, Galt.	½ "	20	"	Nat. Drug Co., Hamilton.	.....	23·70	None.	48025	Adulterated.

DISTRICT OF WINDSOR—JNO. TALBOT—INSPECTOR.

April 19	Black Antimony..	48360	W. H. Stepler, Strathroy.	½ lb.	20	Unknown	Unknown		42·25	None.	48360	Adulterated.
" 20	" ..	48367	S. Tapscott & Co., Brantford.	½ "	15	"	"		1·25	.....	48367	Essentially sulphide of antimony.
" 20	" ..	48372	A. W. Smiley, Brantford.	½ "	15	"	"		0·90	.....	48372	" "
" 21	" .	48377	R M. Thurtell, Ingersoll.	½ "	15	"	"	.....	1·60	.....	48377	" "
" 21	" ..	48382	G. A. Ionson, Ingersoll.	½ "	15	.....	Nat. Drug Co.....	.....	1·45	...	48382	" "

BULLETIN No. 225 BLACK ANTIMONY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Residue insoluble in HCl.	Results of Analysis. Antimony.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
DISTRICT OF MANITOBA A. C. LARIVIERE INSPECTOR.												
1911.									p.c.			
May 4	Black Antimony.	43593	Brooking's Drug Store, Winnipeg	1 lb.	40	Unknown	Unknown		26·00	None.	43593	Adulterated.
" 4	"	43594	W. F. C. Brathwaite, Winnipeg	1½ "	30	"	"		0·85		43594	Essentially sulphide of antimony.
" 5	"	43595	The Nat. Drug & Chem. Co., Winnipeg.	1½ "	20	"	Nat. Drug & Chem. Co., Montreal.		1·50		43595	" "
" 5	"	43596	Andrew's Drug Store, Winnipeg	1½ "	60	"	Unknown		65·85		43596	Very impure sulphide of antimony.
" 5	"	43597	Brown's Drug Store, Winnipeg	1½ "	25	"	Martin Bole & Wynne Co., Winnipeg.	Commercial	*62·50	None.	43597	Adulterated.
DISTRICT OF CALGARY—R. W. FLETCHER—INSPECTOR.												
May 4	Black Antimony	43842	T. G. Caison, Edmonton.	1½ lb.	40	Martin Bole & Wynne, Winnipeg.			46·50	None.	43842	Adulterated.
" 4	"	43843	A. Archibald, Edmonton.	1½ "	40	Lymans Ltd., Montreal.			1·25		43843	Essentially sulphide of antimony.
" 4	"	43844	G. H. Graydon, Edmonton.	1½ "	40	Lymans Ltd., Montreal.			47·30		43844	Higly impure sulphide of antimony.
" 4	"	43845	J. H. Lives, Edmonton.	1½ "	40	Nat. Drug & Chem. Co., Calgary.			1·05		43845	Essentially sulphide of antimony.
" 4	"	43846	Edmonton Drug Co., Edmonton.	1½ "	40	Lymans Ltd., Montreal.			1·05		43846	" "

DISTRICT OF NELSON—THOS. PARKER—INSPECTOR.

May	3	Black Antimony.	48420	Poole Drug Co., Nelson, B.C.	1½ lb.	60	Lymans Ltd., Montreal.	.....	.....	38·65	.....	48420	Impure sulphide of antimony.

DISTRICT OF VANCOUVER—J. F. POWER—INSPECTOR.

Apr.	22	Black Antimony .	38130	Nat. Drug Co., 125 Pender St., Vancouver	1½ lb.	50	.....	Vendor	.....	5·70	.....	38130	Essentially sulphide of antimony.
"	22	" ..	38131	J. A. Tepoorten & Co., 330 Condora St., Vancouver.	1½ "	50	.....	J. L. Hopkins, New York.	.....	2·70	.....	38131	" "
"	24	" ..	38132	L. G. Henderson, 699, Granville St, Vancouver.	1½ "	75	.....	Nat. Durg Co., Vancouver.	.....	14·50	.....	38132	Impure sulphide of antimony.
"	24	" ..	38133	Lair's Drug Store, 648 Main St., Vancouver.	1½ "	50	.....	Nat. Drug Co., Vancouver.	.....	0·95	...	38133	Essentially sulphide of antimony.
"	24	" ..	38134	Burns & Cairns, 720 Pender St., Vancouver.	1½ "	75	.....	J. A. Tepoorten, Vancouver.	.....	3·00	.....	38134	" "

DISTRICT OF VICTORIA—D. O'SULLIVAN—INSPECTOR.

May	12	Black Antimony..	47595	F. J. Williams, Victoria, B.C.	1½ lb.	50	.....	Nat. Drug & Chem. Co. Ltd., Victoria, B.C.	.....	4·05	.....	47595	Essentially sulphide of antimony.
"	12	" ..	47596	Wm Jackson & Co., Victoria, B.C.	1½ "	50	.....	Lyman Bros. & Co., Toronto.	.....	2·15	.....	47596	" "
"	12	" ..	47597	Hall & Co., Victoria, B.C.	1½ "	50	.....	Nat. Drug & Chem. Co., Victoria.	.....	5·25	.....	47597	" "
"	12	" ..	47598	Geo. A. Fraser, Victoria, B.C.	1½ "	50	.....	Nat. Drug & Chem. Co., Victoria.	.....	4·20	.....	47598	" "
"	13	" ..	47599	Nat. Drug & Chem. Co., Victoria, B.C.	1½ "	30	.....	Nat. Drug & Chem. Co. Ltd., Monreal.	.....	1·80	....	47599	" "

* Contains iron (magnetic matter over 35 p.c.). Residue, siliceous matter.

APPENDIX B.

BULLETIN No. 226—CANNED CORN.

OTTAWA, July 21, 1911.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to submit herewith a report upon 146 samples of Canned Corn purchased throughout the Dominion by our Inspectors, in the months of March, April and May of this year.

All the samples were found to be in an excellent condition of preservation.

It will be noted that except in the far West of Canada, this article is sold pretty generally at 10 cents per tin.

The collection embraces forty-six (46) different brands; but upon inquiry I find that this does not imply the same number of manufacturers. Many large dealers have special brands put up for themselves by the regular canners.

There is great uniformity in the weight as well as in the character of the contents of the cans, which naturally leads to the inference that the work of preparing canned corn is carefully and systematically conducted.

No guarantee or statement of weight appears on the labels of any of these samples. The actual weight of the contents varies from about 20 to about 22 ounces; and averages practically 21 ounces or 1 lb. 5 oz.

The chief points to be noted in this report are the frequent presence of acid sulphite of lime, doubtless added for bleaching effect; and the use of a non-sugar sweetener (usually saccharin) in many samples.

Decided amounts of acid sulphite have been found in 46 samples, and traces in 27 others; so that this bleaching material has certainly been employed in 73 samples, or 50 per cent of the entire number inspected.

The question of the use of sulphurous acid (the acid present in sulphites) in foods is a very important one. Some information regarding the matter will be found in Bulletin 126, pp. 24-26, published in 1906. In the intervening five years, a great deal of investigation has been carried on; and a good deal of legislation has resulted. Much of this has been proved to be hasty, in the sense of having been undertaken without full knowledge of the matters treated, and has had to be amended or has remained inoperative. (See F.I.D, No. 89, U.S. Department of Agriculture.)

That sulphurous acid is a poison, is perfectly well ascertained; but that it acts deleteriously on the human system in the minute quantity present in corn, has not been demonstrated. Much of the sulphite introduced as a bleaching agent is oxidized to sulphate, and thus rendered harmless. Free sulphurous acid is further got rid of in the process of cooking the corn, and it is certain that only very minute traces can remain in the article as served at the table. While I do not think that we are in possession of incontrovertible evidence to justify legislative interference in the matter of the employment of sulphites in food, I believe the question to be of such consequence as to demand further, and very careful investigation; and in the meantime I would recommend that, in all cases where acid sulphites, or sulphurous acid has been used in the preparation of food products, a declaration of such fact should appear on the label.

The question of the employment of saccharin (or a similar article) to give sweetness to the product, is another moot point. In this case also, I am unable to regard the evidence in the matter as conclusively proving danger to the health of the consumer. Germany has forbidden the use of saccharin, but this is evidently a matter of fiscal policy, rather than a declaration of the dangerous character of the article. The United

States has declared against the use of saccharin in foods, basing its action upon the report of a Board of Consulting Scientific Experts. (See F.I.D. 135, of April 26, 1911.) This decision was to have come into force on July 1, 1911; but an inhibiting decree was issued on May 23, postponing the operation of the decision against saccharin, until July 1, 1912.

Saccharin (or other non-sugar sweetener) is present in 29 samples, now reported; *i.e.* in 20 per cent of the collection. Here also, I consider it desirable that manufacturers employing saccharin in food products should be required to announce the presence of the article; since, while the evidence available is not such as to justify the condemnation of saccharin, there exists among physicians and other qualified judges, a conviction that, in some cases, it is capable of doing harm.

I beg to recommend the publication of this report as Bulletin 226.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN 226—CANNED CORN.

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Total Weight.	Results of Analysis. Weight of Can.	Results of Analysis. Weight of Contents.	Results of Analysis. Sulphites.	Results of Analysis. Artificial Sweetener (non-sugar)	No. of Sample.
DISTRICT OF NOVA SCOTIA—R. J. WAUGH—INSPECTOR.														
1911.									oz.	oz.	oz.			
April 18	Canned Corn...	42251	B. H. Dodge & Co., Kentvill, N.S.	3cans.	30	A. C. Miller, Picton, Ont.	R. B. Seeton & Co., Halifax, N.S.	Little Chief...	24·5	3·3	21·2	.....	Present.	42251
18	" ...	42252	DeWolfe & Lamont, Kentville, N.S.	3 "	30	" "	" "	" ...	24·7	3·5	21·2	Present.	...	42252
" 19	" ...	42253	Wm. Low & Co., Yarmouth, N.S.	3 "	25	Simcoe Canning Co., Simcoe, Ont.	Manufacturers	Lynn Valley..	23·7	3·7	20·0	Trace.	...	42253
" 19	" ..	42254	Yerxas, Yarmouth, N.S.	3 "	33	Bloomfield Packing Co.. Bloomfield, Ont.	Dearborn & Co., St. John, N.B.	Quaker....	25·7	3·6	22·1	....	Present.	42254
" 20	" ...	42255	Murphy & DeMont, Windsor, N.S.	3 "	30	Simcoe Canning Co., Simcoe, Ont.	Manufacturers ...	Lynn Valley..	24·3	3·7	20·6	Present.	.....	42255
" 24	" ...	42256	A. L. Doyle & Co., Halifax, N.S.	3 "	25	E. D. Smith, Winona, Ont.	"	E. D. S.....	25·7	3·7	22·0	.....	.....	42256
" 24	" ..	42257	Bauld Bros., Ltd., Halifax, N.S.	3 "	25	Bloomfield Packing Co., Bloomfield, Ont.	"	Quaker...	25·4	3·7	21·7	Present.	Present.	42257
" 24	" ..	42258	J. F. Crowe & Co., Ltd., Halifax, N.S.	3 "	25	E. D. Smith, Winona, Ont.	" ..	E. D. S.	25·7	3·5	22·2	....	...	42258
" 24	" ...	42259	Wentzells, Ltd., Halifax, N.S.	3 "	30	Simcoe Canning Co., Simcoe, Ont.	"	Lynn Valley..	26·2	3·5	22·7	Trace	....	42259
" 24	" ...	42260	F. W. Hodgson, Halifax, N.S.	3 "	30	" "	J. F. Crowe & Co., Halifax, N.S.	" ..	26·2	3·8	22·4	.....	.....	42260
DISTRICT OF PRINCE EDWARD ISLAND—THEO. MOORE—INSPECTOR.														
April 6	Canned Corn...	46041	Sanderson & Co., Charlottetown.	3cans,	30	.....	Hudon Hebert et Cie, Montreal.	Gazelle.....	24·2	3·5	20·7	Present	.....	46041

	6	"	...	46042	M. A. McLeod, Charlottetown.	3	"	30	Simcoe Canning Co., Simcoe, Ont.	.....	Lynn Valley..	24·0	3·5	20·5	.....	.....	46042
"	7	"	...	46043	Geo. Rackham, Charlottetown.	3	"	30	Old Homestead Canning Co., Picton, Ont.	.....	Old Homestead.	24·0	3·5	20·5	Present.	.....	46043
"	10	"	...	46044	C. C. Carlton, Souris.	3	"	30	J. W. Windsor, Montreal.	.....	Ice Castle ...	23·5	3·7	19·8	...	.....	46044
"	11	"	...	46045	Sterns Bros., Souris.	3	"	36	A. C. Miller & Co., London, Ont.	.....	Little Chief...	24·5	4·0	20·5	...	...	46045
"	24	"	...	46046	Geo. A. McLeod, Hunter River.	3	"	30	W. Boulter & Sons, Picton, Ont.	.....	Lion	24·5	4·0	20·5	Trace.	.....	46046
"	24	"	...	46047	H. A. Leslie, Kensington.	3	"	36	Lakeside Canning Co., Ltd., Wellington, Ont.	.....	Riverdale	25·5	4·0	21·5	.....	...	46047
"	24	"	...	46048	A. Bowness, Kensington.	3	"	36	Essex Canning & Preserving Co., Essex, Ont.	.....	Essex Canning Co.	25·2	3·5	21·7	...	.....	46048
"	25	"	...	46049	J. M. Noonan, Summerside.	3	"	36	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker.	25·7	4·2	21·5	.....	.....	46049
"	25	"	...	46050	C. Kane, Summerside.	3	"	30	L. M. Schenck Co., St. Catharines, Ont.	.....	Globe	24·7	3·2	21·5	.....	...	46050

DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON—INSPECTOR.

Mar.	28	Canned Corn...	45464	Dearborn & Co., St. John, N.B.	3 cans.		30	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker.....	25·0	3·5	21·5	.....	Present.	45464
"	29	" ...	45465	Q. Barkers Ltd., St. John, N.B.	3	"	25	The Essex Canning & Preserving Co. Ltd., Essex, Ont.	.....	Essex	25·5	4·0	21·5	...	.....	45465
"	31	" ...	45466	Northrup & Co., St. John, N.B.	3	"	25	The Delhi Fruit & Veg. Canning Co. Ltd., Delhi, Ont.	.....	Maple Leaf...	24·5	3·7	20·8	Trace.	.....	454 6
Apr.	10	" ...	45467	John McKnight, Fredericton, N.B.	3	"	27	The Simcoe Canning Co., Simcoe, Ont.	.....	Lynn Valley..	25·0	3·6	21·4	.....	...	45467
"	11	" ...	45468	Woolverton & Gibson Woodstock, N.B.	3	"	33	Dominion Canners Ltd., Hamilton, Ont.	.....	Gold Bond....	25·5	3·7	21·8	Trace.	Present.	45468
"	13	" ...	45469	D. R. Bedell, Andover, N.B.	3	"	30	The Ontario Pure Food Co. Ltd.	.....	Red Seal.....	24·5	3·5	21·0	"	.....	45469
"	13	" ...	45470	G. T. Baird & Co. Ltd., Perth, N.B.	3	"	30	The Simcoe Canning Co., Simcoe, Ont.	.....	Lynn Valley..	24·4	3·7	20·7	.....	.....	45470
"	19	" ...	45471	Mills Eveleigh Ltd., Sussex, N.B.	3	"	30	Lakeside Canning Co. Ltd., Wellington, Ont.	.....	Riverside.....	25·1	3·7	21·4	...	.....	45471

BULLETIN No. 226—CANNED CORN.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Total Weight.	Weight of Can.	Weight of Contents.	Sulphites.	Artificial Sweetener (non-sugar).	No. of Sample.
DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON—INSPECTOR—*Continued.*														
1911.									oz.	oz.	oz.			
Apr. 21	Canned Corn...	45472	M. Bannon, Newcastle, N.B.	3cans.	30	The Delhi Fruit & Veg. Canning Co., Delhi, Ont.	.....	Maple Leaf...	24·7	3·8	20·9	Present.	...	45472
" 22	" ...	45473	Frank P. Gatain, Bathurst, N.B.	3 "	30	Brighton Canning Co., Brighton, Ont.	.....	Thistle.....	24·3	3·3	21·0	"	.....	45473
DISTRICT OF QUEBEC—F. X. W. E. BELAND—INSPECTOR.														
Mar. 29	Canned Corn...	36921	O. Lacroix, 19 rue St. Joseph, Quebec.	3cans.	30	The Oshawa Canning Co.	Manufacturers....	Kitchner.....	24·8	4·0	20·8	Trace.	Present.	36921
" 29	" ...	36922	O. Lacroix, 19 rue St. Joseph, Quebec.	3 "	30	A. C. Miller & Co., Picton, Ont.	J. B. Reneaud et Cie.	Little Chief...	24·5	3·6	20·9	Present.	"	36922
Apr. 3	" ...	36923	Chas. S. Riverin, 55 rue de la Couronne, Québec.	3 "	30	A. C. Miller & Co., Picton, Ont.	Turcot Frère et Cie	" ..	24·1	3·5	20·6	"	"	36923
" 4	. ...	36924	Myrand & Pouliot, 70 rue de la Couronne, Quebec.	3 "	30	Boulters Picton, Ont.	J. B. Reneaud et Cie.	Lion.....	25·7	3·7	22·0	.....	.....	36924
" 5	" ...	36925	Arthur Rinfret, 414 rue St. Joseph, Quebec.	3 "	30	Farmers Canning Co., Bloomfield, Ont.	T. Ledroit et Frère	Golden West..	25·0	3·6	21·4	.....	Present.	36925
" 10	" ...	36926	Mad. V. Marie Bertrand, 151 rue Massue, Quebec.	3 "	30	Simcoe Canning Co., Simcoe, Ont.	J. B. E. Latellier.	Lynn Valley..	21·2	3·6	20·6	Present.	.....	36926
" 10	" ...	36927	G. E. Hamel, 914 rue St. Valier Quebec.	3 "	30	Simcoe Canning Co., Simcoe, Ont.	N. Turcot et Cie..	" ..	24·2	3·5	20·7	"	.....	36927

" 10	" ...	36928	Emile Blouin, 30 rue Carillon, Quebec.	3 "	30	Boulters, Picton, Ont	Turcot et Frère. ..	Lion.	24·2	3·6	20·6	"	.....	36928
" 10	" ...	36929	Eudore Delisle, 2 rue Tessier, Quebec.	3 "	30	Boulters, Picton, Ont	Unknown	"	24·0	3·6	20·4	. ...	.....	36929
" 10	" ...	36930	Eudore Delisle, 2 rue Tessier, Quebec.	3 "	30	Simcoe Canning Co.	Unknown	Lynn Valley..	25·5	3·6	21·9	.....	.....	36930

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU—INSPECTOR.

April 24	Canned Corn ..	38934	C. Labelle et Cie, Sorel.	3 cans.	30	Napanee Canning Co., Napanee, Ont.	....	Canada's Pride	24·7	3·5	21·2	Present.	.....	38934
" 25	" ...	38935	L. Ed. Choquet, Farnham.	3 "	30	The Simcoe Canning Co., Simcoe, Ont.	.. ..	Lynn Valley..	24·7	3·7	21·0	.. ..	.....	38935
" 26	" ...	38936	Côté et Cie, St. Jean	3 "	35	A. C. Miller & Co., Picton, Ont.	....	Little Chief. .	25·5	4·0	21·5	.	.....	38936
" 26	" ...	38937	D. Cusson, St. Jean.	3 "	33	Exeter Canning Co., Ltd., Exeter, Ont.	. ...	Excelsior.	25·5	3·7	21·8	. .	Present.	38937
" 27	" ...	38938	Isabelle & Rivet, Granby.	3 "	30	Bloomfield Packing Co., Ltd., Bloomfield, Ont.	.....	Quaker.....	25·4	3·7	21·7	.....	"	38938
May 2	" ..	38939	J. N. Turcot, Drummondville.	3 "	30	....	Mf. for Hudon Hebert et Cie, Ltd., Montreal.	Gazelle.	24·4	3·4	21·0	Present.	.....	38939
" 2	" ..	38940	T. A. Bourgault, Drummondville.	3 "	30	W. Boulter & Sons, Picton, Ont.	....	Lion.....	24·6	4·2	20·4	Trace.	.....	38940
" 3	" ...	38941	E. B. Greely, Sutton.	3 "	30	The Old Homestead, Picton, Ont.	....	Old Homestead.	24·2	3·5	20·7	.....	.....	38941
" 3	" ...	38942	A. M. Hunter, Foster, P.Q.	3 "	30	Napanee Canning Co., Napanee, Ont.	....	Canada's Pride	25·4	3·6	21·8	Trace.	.....	38942
" 5	" ...	38943	W. B. Murray, E. Sherbrooke.	3 "	30	Miller & Co., Trenton, Ont.	.....	Log Cabin....	24·7	3·8	20·9	Present.	.....	38943

DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.

Mar. 24	Canned Corn...	40601	Laporte Martin et Cie, Ltd., St. Paul St., Montreal.	3 cans.	27	A. C. Miller & Co., Picton, Ont.	. . ..	Little Chief...	24·2	3·5	20·7	Present.	.....	40601
" 24	" ...	40602	" "	3 "	26	Miller & Co., Trenton, Ont.	.....	Log Cabin....	23·2	3·5	19·7	Trace.	Present.	40602
" 24	" ...	40603	" "	3 "	27	....	Vendors	Victoria.....	24·8	3·5	21·3	Present.	.....	40603
" 24	" ...	40604	" "	3 "	26	Simcoe Canning Co., Simcoe, Ont.	.....	Lynn Valley..	24·6	3·5	21·1	"	.....	40604
" 24	" ...	40605	" "	3 "	27	The Farmers Canning Co., Ltd., Bloomfield, Ont.	... .	Farmers....	25·2	3·7	21·5	"	.. ...	40605
" 24	" ...	40606	" "	3 "	26	W. Boulter & Sons, Picton, Ont,	.....	Lion.....	24·5	3·6	20·9	"	.....	40606

BULLETIN No. 226—CANNED CORN.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Total Weight.	Weight of Can.	Weight of Contents.	Sulphites.	Artificial Sweetener (non-sugar).	No. of Sample.
DISTRICT OF MONTREAL—J. J. COSTIGAN—INSPECTOR—*Continued.*														
1911.									oz.	oz.	oz.			
Mar. 25	Canned Corn...	40607	A. Rochon, 25 Prince Arthur E., Montreal.	3cans.	30	Bloomfield Packing Co., Ltd., Bloomfield, Ont.	.....	Quaker.....	25·7	3·5	22·2	...	Present.	40607
" 25	"	40608	H. Porrier, 245 St. Catherine E., Montreal.	3 "	30	.....	L. Chaput Fils et Cie, Montreal.	Primus. ...	25·0	3·6	21·1	Trace.	"	40608
" 25	"	40609	" "	3 "	30	Aylmer Canning Co., Ltd., Aylmer, Ont.	.....	Canada First.	24·3	3·7	20·6	Present.		40609
" 25	"	40610	O. Martel, 166 Dorchester St., Montreal.	3 "	30	.....	Hudon Hebert et Cie, Ltd., Montreal.	Gazelle ...	24·3	3·6	20·7	.....	...	40610
DISTRICT OF OTTAWA—J. A. RICKEY—INSPECTOR.														
Apr. 3	Canned Corn...	43231	W. Hyndman, Smiths Falls, Ont.	3cans.	30	Bloomfield Packing Co., Bloomfield, Ont.	Robertson Nicolle, Smiths Falls.	Quaker	25·0	3·5	21·5	.	Present.	43231
" 3	" ...	43232	H. N. Layng, Smiths Falls, Ont.	3 "	30	Old Homestead Canning Co., Picton, Ont.	Unknown	Old Homestead.	24·2	3·5	20·7	Present.	.....	43232
" 4	" ...	43233	A. L. Pinard & Sons, Rideau St., Ottawa	3 "	30	Simcoe Canning Co., Simcoe, Ont.	Manufacturers ...	Lynn Valley.	24·5	3·6	20·9	Trace.	.	43233
" 4	" ...	43234	McDonald Bros., 441 Gladstone Ave., Ottawa.	3 "	30	Canadian Canners Ltd., Hamilton.	F. J. Castle Co. Ltd., Ottawa.	White Rose...	24·5	3·8	20·7	"	....	43234
" 4	" ...	43235	Goodall Bros, Ottawa	3 "	30	Simcoe Canning Co., Simcoe, Ont.	H. N. Bate & Sons Ltd., Ottawa.	Lynn Valley.	24·2	3·6	20·6	.....	.	43235

"	5	" ...	43236	T. McCormick, Arnprior.	3 "	30	Canadian Canners Ltd., Hamilton.	Unknown	White Rose. .	24·8	3·6	21·2	Trace.	. .	43236
"	6	" ...	43237	R. McGregor Ltd., Bank St., Ottawa.	3 "	30	Bloomfield Packing Co. Ltd., Bloomfield, Ont.	J. Freedman, Ottawa.	Quaker.....	25·2	3·6	21·6	...	Present.	43237
"	6	" ...	43238	W. B. Graham, Bank St., Ottawa.	3 "	30	Simcoe Canning Co., Simcoe. Ont.	Unknown	Lynn Valley..	25·6	3·8	21·8	.....	....	43238
"	7	" ...	43239	J. Mayberry & Co., Prescott.	3 "	30	Canadian Canners Ltd., Hamilton.	Manufacturers....	Little Chief...	24·5	4·0	20·5	.....	....	43239
"	7	" ..	43240	McDermid & McCarthy, Prescott.	3 "	30	Boulter & Sons, Picton, Ont.	"	Lion.....	24·9	3·6	21·8	Trace.	....	43240

DISTRICT OF KINGSTON—JAS. HOGAN—INSPECTOR.

Mar.	24	Canned Corn....	47776	W. E. Hopkinson, Kingston.	3 cans.	30	.....	Fenwick Hendry Co., Kingston.	Solar.....	25·2	3·5	21·7	Present.	.....	47776
"	24	" ...	47778	L. Murphy, Kingston.	3 "	30	Napanee Canning Co.	....	Canada's Pride	25·0	3·6	21·4	.....	..	47778
"	24	" ...	47779	S. T. Kirk, Kingston	3 "	30	.....	Fenwick Hendry Co., Kingston.	Crossed Keys.	25·0	3·5	21·5	Present.	.....	47779
"	24	" ...	47780	P. A. Haffner, Kingston.	3 "	30	.....	"	" .	24·9	3·6	21·3	"	.....	47780
"	24	" ...	47781	J. McCulla, Kingston.	3 "	30	Canning Co., Picton.	.....	Old Homestead.	25·5	3·7	21·8	.....	....	47781
"	27	" ..	47782	R. Elvins, Belleville.	3 "	30	S. S. Potter Co., Mountain View, Ont.	... .	Mountain View	25·0	3·5	21·5	.....	. . .	47782
"	27	" ...	47783	H. E. Fairfield, Belleville.	3 "	30	.....	Eby Blain, Toronto	Anchor.....	25·2	3·7	21 5	.....	Present.	47783
"	27	" ...	47784	H. Crozier, Cobourg.	3 "	30	Bloomfied Packing Co.	....	Quaker. . .	25·6	3·6	22·0	.....	"	47784
"	28	" ...	47785	J. Curtis, Port Hope	3 "	30	Lakeside Canning Co.	... .	Maple Grove..	24·5	3·4	21·1	.... .	.....	47785
"	24	" ...	47792	Geo. Gibson, Kingston.	3 "	30	.....	Geo. Robertson & Son, Kingston.	Old Homestead.	24·1	3·7	20·4	.....	. . .	47792

DISTRICT OF TORONTO—H. J. DAGER—INSPECTOR.

April	3	Canned Corn...	47282	A. C. McNabb, Barrie.	3 cans.	38	Brighton Canning Co., Brighton, Ont.	.....	Thistle.....	24·9	3·7	21·2	.....	.....	47282
"	3	" ...	47283	B. R. Kean, Orillia.	3 "	30	The Delhi Fruit & Veg. Canning Co., Ltd., Delhi, Ont.	.....	Maple Leaf...	24·8	3·7	21·1	.....	.....	47283
"	4	" ..	47284	The Playfair Preston Co., Ltd., Midland	3 "	30	The Old Homestead Canning Co., Picton, Ont.	....	Old Homestead.	24·8	3·6	21·2	Present.	.....	47284
"	5	" ...	47285	W. H. Rourke, Penetang.	3 "	38	Aylmer Canning Co., Ltd., Aylmer, Ont.	.....	Canada First .	24·5	3·5	21·0	Trace.	.....	47285

BULLETIN No. 226—CANNED CORN.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Results of Analysis.					No. of Sample.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Total Weight.	Weight of Can.	Weight of Contents.	Sulphites.	Artificial Sweetener (non-sugar).	
DISTRICT OF TORONTO—H. J. DAGER—INSPECTOR—*Continued.*														
1911.									oz.	oz.	oz.			
Apr. 6	Canned Corn...	47286	W. J. Nichol, 252 Queen St. East, Toronto.	3 cans	30	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker.....	25·6	3·6	22·0	..	Present.	47286
" 6	" ...	47287	The Wm. Davies Co., Ltd., 300 Queen St. East, Toronto.	3 "	30	.....	.....	"Crisp" Brand, packed expressely for grocers, Ltd.	26·0	4·0	22·0	..	"	47287
" 6	" ...	47288	F. R. Nicholson, 380 College St. Toronto.	3 "	30	Beamsville Preserving Co., Beamsville, Ont.	.....	Peerless	24·7	3·7	21·0	...	.....	47288
" 6	" ...	47289	John Grigor, 568 College St., Toronto.	3 "	25	The Oshawa Canning Co., Ltd., Oshawa.	.....	Kitchner.....	25·0	4·0	21·0	Present.	Present.	47289
" 10	" ...	47290	A. Ballentine & Bros., 169 John St., South Hamilton.	3 "	30	Standard Canning Co., Hamilton.	.....	Old Church...	24·5	3·7	20·8	"	.....	47290
" 10	" ...	47291	Trebilcock & Beny, 310 King St. East, Hamilton.	3 "	30	.....	Jas. Turner & Co., Hamilton.	Triangle.....	24·5	3·7	20·8	.....	....	47291
DISTRICT OF LONDON—JNO. TALBOT—ACTING INSPECTOR.														
April 26	Canned Corn...	48006	Stuebing & Son, Berlin, Ont.	3 cans.	30	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker.....	24·2	3·5	20·7	Present.	.....	48006
" 26	" ...	48008	Randall & Roos, Berlin, Ont.	3 "	25	" "	.....	"	25·4	3·7	21·7	.....	Present.	48008

"	26	" ...	48018	Betzner & Co., Berlin, Ont.	3		30	Delhi Canning Co., Delhi, Ont.	.....	Maple Leaf...	24·7	3·5	21·2	Present.	.....	48018
"	27	" ...	48026	Hollands & Macauley, Galt.	3	"	30	Brighton Canning Co., Brighton, Ont.	.....	Thistle.....	24·5	3·7	20·8	.....	.....	48026
"	25	" ...	48386	A. J. Groon, Guelph.	3	"	30	Aylmer Canning Co., Aylmer, Ont.	.....	Canada First .	25·0	4·0	21·0	Trace.	.....	48386
"	25	" ...	48391	J. M Dooley, Guelph.	3	"	38	Delhi Canning Co., Delhi, Ont.	.....	Maple Leaf..	24·8	3·5	21·3	Present.	...	48391
"	25	" ...	48393	Guelph Co-op. Assn., Guelph.	3	"	30	" "	.....	" . .	25·2	3·8	21·4	"	.....	48393
"	25	" ...	48395	Jas. Gow, Guelph...	3	"	30	Aylmer Canning Co., Aylmer, Ont.	.....	Canada First .	25·5	3 8	21·7	.....	.....	48395

DISTRICT OF WINDSOR—JNO. TALBOT—INSPECTOR.

1911.											oz.	oz.	oz.			
Apr.	18	Canned Corn....	48344	A. M. Smith & Co., London, Ont.	3cans.		27	Aylmer Canning Co., Aylmer, Ont.	.....	Canada First (Honey Dew)	24·4	3·6	20·8	Present.	....	48344
"	18	" ...	48345	Elliot Marr & Co., London, Ont.	3	"	24	Delhi Canning Co., Delhi, Ont.	.....	Maple Leaf...	24·5	3·6	20·9	.....	.....	48345
"	18	" ...	48349	W. T. Mullens, London West.	3	"	25	Oshawa Canning Co., Oshawa.	.....	Kitchner.. ...	25·8	3·8	22·0	.....	.....	48349
"	18	" ...	48351	Mrs. A. M. Tillman, London West.	3	"	30	Aylmer Canning Co., Aylmer, Ont.	.....	Canada First..	24·2	3·5	20·7	Present.	.....	48351
"	18	" ...	48353	G. Finnigan, London West.	3	"	30	Gorman Eckert & Co., London.	.....	Rex.....	24·5	4·0	20·5	Trace.	Present.	48353
"	19	" ...	48355	Wm Cross, Strathroy	3	"	30	Delhi Canning Co., Delhi, Ont.	.....	Maple Leaf...	24·5	3·7	20·8	....	....	48355
"	19	" ...	48361	Dom. Canners Ltd., Strathroy.	3	"	Nil	Vendors.....	.....	Taken from stock in cannery not labelled.	24·6	3·5	21·1	Present.	.....	48361
"	20	" ...	48373	Geo. Harp, Brantford.	3	"	30	Brighton Canning Co.	.....	Thistle.....	24·2	3·5	20·7	.....	....	48373

DISTRICT OF MANITOBA—A. C. LARIVIÈRE—INSPECTOR.

Apr.	19	Canned Corn....	43563	W. J. Young, Brandon.	3cans.		40	The Delhi F. & Veg. Canning Co. Ltd., Delhi, Ont.	.....	Maple Leaf...	24·0	3 5	20·5	.....	.	43563
"	19	" ..	43564	W. J. Young, Brandon.	3	"	40	Burlington Canning Co. Ltd., Burlington, Ont.	.....	Burlington...	24·8	3·5	21·3	Trace.	. .	43564
"	19	" ...	43565	Smith & Burton, Brandon.	3	"	40	Kent Canning Co., Chatham, Ont.	.....	Kent.....	24·2	3·4	20·8	Present.	....	43565
"	19	" ...	43566	The Codville Co. Ltd., Brandon.	3	"	29	The Delhi F. & Veg. Canning Co. Ltd., Delhi, Ont.	.....	Maple Leaf...	24·2	3·7	20 5	....	.....	43566

BULLETIN No. 226—CANNED CORN.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Total Weight.	Weight of Can.	Weight of Contents.	Sulphites.	Artificial Sweetener (non-sugar).	No. of Sample.
DISTRICT OF MANITOBA—A. C. LARIVIERE—INSPECTOR—*Continued.*														
1911.									oz.	oz.	oz.			
Apr. 20	Canned Corn...	43567	Foley Bros Larson, Winnipeg.	3 cans	27	The Delhi F. & Veg. Canning Co., Ltd., Delhi, Ont.	.....	Maple Leaf...	25·5	3·6	21·9	.....	.....	43567
" 20	" ...	43568	Foley Bros Larson, Winnipeg.	3 "	26	Aylmer Canning Co. Ltd., Aylmer, Ont.	.....	Canada First..	24·6	3·6	21·0	Present.	.....	43568
" 20	" ...	43569	The Jobin Marrin Co. Ltd., Winnipeg	3 "	30	The Old Homestead Canning Co., Picton, Ont.	.....	Old Homestead.	25·4	3·7	21·7	Trace.	.....	43569
" 21	" ...	43570	H. Slasor, 148 Sherbrooke, Winnipeg.	3 "	30	Burlington Canning Co., Burlington, Ont.	.....	Burlington....	24·5	3·7	20·9	Present.	.....	43570
" 21	" ...	43571	The Sweedish & Grocery Co., Winnipeg	3 "	30	Winona Preserving Co., Winona, Ont.	.....	Ben Hur.....	24·5	3·7	20·8	.....	.....	43571
" 21	" ...	43572	The Sweedish & Grocery Co., Winnipeg	3 "	30	The Oshawa Canning Co. Ltd., Oshawa, Ont.	.....	Kitchner	25·2	3·7	21·5	Present.	Present.	43572
DISTRICT OF CALGARY—R. W. FLETCHER—INSPECTOR.														
May 3	Canned Corn...	43832	J. H. Morris & Co., Edmonton.	3cans.	35	Thames Canning Factory, Thamesville, Ont.	.....	Thames.....	25·7	3·9	21·8	Trace	.....	43832
" 3	" ...	43833	Hallier & Aldridge, Edmonton.	3 "	35	" "	.....	"	26·0	3·6	22·4	.....	.....	43833
" 3	" ...	43834	Acme Co., Ltd., Edmonton.	3 "	35	W. Boulter & Sons, Picton, Ont.	.....	Lion.....	24·4	3·4	21·0	.....	.....	43834
" 3	" ...	43836	Capital Mercantile Co., Edmonton.	3 "	35	Balfour Smye & Co., Hamilton, Ont.	.....	Tartan.. ...	24·3	3·7	20·6	Trace	.....	43836

"	9	"	...	43837	L. T. Mewburn & Co., Ltd., Calgary.	3	.	40	Delhi Fruit and Veg. Canning Co., Delhi, Ont.	.....	Maple Leaf...	24·2	3·4	20·8	.....	.....	43837
"	10	"	...	43838	Georgeson & Co., Ltd., Calgary.	3	"	40	" "	.....	" ...	24·3	3·4	20·9	Trace	.....	43838
"	10	"	...	43839	Campbell Wilson & Horne, Calgary.	3	"	40	Aylmer Canning Co., Aylmer, Ont.	.....	Canada First .	24·0	3·4	20·6	Present.	.....	43839
"	10	"	...	43840	G. F. & J. Galt, Calgary.	3	"	40	Miller & Co., Trenton, Ont.	.....	Log Cabin....	25·8	3·9	21·9	Trace	.....	43840
"	10	"	...	43841	The Hudson Bay Co., Calgary.	3	"	40	Aylmer Canning Co., Aylmer, Ont.	.....	Canada First .	24·2	3·6	20·6	.....	...	43841
"	10	"	...	43900	The Hudson Bay Co., Edmonton.	3	"	35	Canadian Canners Ltd., Hamilton, Ont.	.....	Auto	21·6	3·6	21·6	....	....	43900

DISTRICT OF VANCOUVER—J. F. POWER—INSPECTOR.

April	24	Canned Corn...	38155	Wells & Co., Vancouver.	3cans.		45	Canadian Canners, Ltd., Hamilton, Ont.	.....	Auto.....	24·5	3·5	21·0	....	..	38155
"	25	"	...	38156	Gruchy & Carlow, Vancouver.	3	"	40	E. D. Smith, Winona, Ont.	.....	E. D. S.....	24·5	3·5	21·0	Trace	....	38156
"	25	"	...	38157	Samuel Bell, Vancouver.	3	"	35	Strathroy Canning Co., Strathroy, Ont.	.....	Middlesex ...	25·0	3·5	21·5	Present.	.....	38157
"	25	"	...	38158	Hudson Bay Co., Vancouver.	3	"	30	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker. ...	25·0	3·5	21·5	.....	Present.	38158
"	25	"	...	38159	W. N. Malkin Co., Vancouver.	3	"	50	Canadian Canners Association.	.....	Canada First .	24·0	3·5	20·5	Present.	....	38159
"	26	"	...	38160	J. S. Foran, Vancouver.	3	"	40	Farmers Canning Association.	.....	Farmer.	25·0	3·2	21·8	...	...	38160
"	26	"	...	38161	Clark's Grocery, Vancouver.	3	"	40	Exeter Canning & Preserving Co., Exeter, Ont.	.....	Excelsior.. ...	25·5	3·5	22·0	.....	Present.	38161
"	27	"	...	38162	T. F. McDowell, Vancouver.	3	"	40	Dominion Canners, Hamilton.	.....	Faultless. ...	24·7	3·7	21·0	Present.	.....	38162
"	27	"	...	38163	Ed. F. Allen, Stall 19, Granville Public Market, Vancouver.	3	"	40	Belleville Canning Co., Belleville, Ont.	.....	Queen.....	23·7	3·2	20·5	...	....	38163
"	27	"	...	38164	Walford & Roney, Vancouver.	3	"	40	Brighton Canning Co., Brighton, Ont.	.....	Thistle.. ...	25·5	3·5	22·0	....	...	38164

BULLETIN No. 226—CANNED CORN.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Total Weight.	Weight of Can.	Weight of Contents.	Sulphites.	Artificial Sweetener (non-sugar).	
DISTRICT OF VICTORIA—D. O'SULLIVAN—INSPECTOR.														
1911.									oz.	oz.	oz.			
May 5	Canned Corn...	47575	Windsor Grocery Co., Victoria, B.C.	3 cans.	40	Brighton Canneries Co., Brighton, Ont.	.....	Thistle.. . . .	24·5	3·5	21·0	Present.	...	47575
" 5	" ...	47576	D. H. Ross & Co., Victoria, B.C.	3 "	25	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker.	25·6	3·7	21·9	.....	Present.	47576
" 5	" ...	47577	West End Grocery Co. Ltd., Victoria, B.C.	3 "	40	Canadian Cannery Ltd., Hamilton, Ont.	.....	Auto.	25·0	3·5	21·5	Present.	.....	47577
" 11	" ...	47578	Harrison & McDonald, Victoria, B.C.	3 "	40	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker.	25·0	3·6	21·4	. . .	Present.	47578
" 11	" ...	47579	Acton Bros., Victoria, B.C.	3 "	40	Bloomfield Packing Co., Bloomfield, Ont.	.....	"	24·8	3·6	21·2	Trace.	.....	47579
" 11	" ...	47580	R. Erskine & Co., Victoria, B.C.	3 "	40	Canadian Canners Ltd., Hamilton, Ont.	.....	Auto.	24·3	3·3	21·0	Present.	. . .	47580
" 11	" ...	47581	E. J. Bailey, Victoria, B. C.	3 "	40	J. H. Wethey, Ltd., St. Catharines, Ont.	.....	Laurel.....	24·5	3·5	21·0	...	.....	47581
" 12	" ..	47582	Copas & Young, Victoria, B.C.	3 "	40	Balfour Smye & Co., Hamilton, Ont.	.....	Tartan.. ...	24·3	3·7	20·6	Trace.	....	47582
" 12	" ...	47583	H. O. Kirkham, Victoria, B.C.	3 "	40	Bloomfield Packing Co., Bloomfield, Ont.	.....	Quaker. ...	25·8	3·7	22·1	.....	Present.	47583
" 12	" ...	47584	W. B. Hall, Victoria, B.C.	3 "	40	Canadian Canners Ltd., Hamilton, Ont.	.....	Auto.	24·5	3·6	20·9	....	....	47584

APPENDIX C.

BULLETIN No. 227—FERTILIZERS, 1911.

OTTAWA, September 18, 1911.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to hand you a report upon 161 samples of fertilizers, as sold throughout the Dominion of Canada during the current year. The collection was made during the month of May; and this report, like the collection which it discusses, is issued much later than should be the case. The delay as you are aware, has been due to causes which could not be controlled. The rebuilding of our laboratories, and the loss of two members of this staff, in one case by death, in the other by disqualifying illness, has put the work of this branch, very far behind.

As in my report for last year (See Bulletin 213) I have to note a large number of failures to comply with the requirements of the Fertilizers Act of 1909. In many cases this appears to be the fault of the vendor; rather than that of the manufacturer. Indeed, so far as my experience goes, I have found on the part of manufacturers, a very praiseworthy desire to live up to the requirements of the Act governing the sale of fertilizers. The conditions named by the Act are so simple and plain that there would seem to be no excuse for failing to meet them. It is difficult to see how anything less could be demanded, consistently with giving effective protection to the purchaser.

In some instances, there seems to be a lack of care exercised by the inspector; and in the present case this is very marked as regards the Quebec district. When a fertilizer is sold with its registration number, there is no difficulty in identifying it; and in finding the claim made for it by the manufacturer. Even without the registration number, if the specific name of the brand be given, together with the name of the manufacturer, it is usually possible to identify the fertilizer by means of the records fyled in the Department. When, however, neither the registration number nor the name of the brand is given, and the article is simply stated to be a fertilizer, it is apparent that no trustworthy identification can be made.

Of the 161 samples now reported, 123 samples have been identified with sufficient certainty to enable me to declare them up to guaranteed value in fertilizing materials. Of the remaining 38 samples, 4 are not registered. These are as follows :—

No. 38195—Bonemeal—Portland Seed Co.
38200—Beef Scraps—Swift & Co., Chicago.
47603—Whale Guano—Pacific Whaling Co.
47629—Bone & Blood Fertilizer—Frye Bruhne & Co., Seattle.

The vendors of these brands are of course amenable to the penalties named in Section 15 of the Fertilizers Act, 1909.

Fourteen (14) samples, about which identification appears to be satisfactory, fail to comply with the guarantees; but in most of these cases, the deficiency is compensated by an overplus of other fertilizing constituents. A detailed list of these samples is given :—

No. 46631—deficiency of 12·10 p. c. phosphoric acid.
46636—deficiency of 1·71 p, c. potash is compensated.
46637—deficiency of 7 p. c. phosphoric acid.
46639—deficiency of 1·27 p. c. potash is co npensated.
45486—deficiency of 3·55 p. c. phosphoric acid is compensated.
38956—deficiency of 0·76 p. c. nitrogen is compensated.
40675—deficiency of 2 p. c. phosphoric acid is compensated.
48529—deficiency of 2 p. c. nitrogen is compensated.
47320—deficiency of 4·75 p. c. phosphoric acid is partially compensated.
48056—deficiency of available phosphoric acid, but guaranteed amount of total phosphoric acid.
48063—deficiency of 1·1 p. c. potash.
48030—deficiency of 1 p. c. nitrogen is compensated.
47604—deficiency of 1·16 p. c. nitrogen is compensated
47605—deficiency of 2·22 potash.

There are, therefore, only 4 samples in which uncompensated deficiency of more than one half of one per cent. of a fertilizing constituent is present ; viz. :—

No. 46631—Bone Meal—Nova Scotia Fertilizer Co., Agents for manufacturer.
48063—Celery and Potato Fertilizer—Buffalo Fertilizer Co.
47605—Fertilizer B—Victoria Chemical Co.
46637—Registration 302, E. E. McNutt, Truro.

These samples have been repeatedly analysed, and the findings corroborated. The deficiencies in the four samples are sufficiently notable to bring them under the provisions of Section 15 of the Act.

The remaining 20 samples cannot be identified with sufficient certainty to enable me to pronounce upon their character. An attempt has been made to identify them, with the aid of the imperfect information furnished and it is probable that the following is correct :—

No. 46638—Probably up to guarantee as 253
46062 " " " as 324
36938 " " " as 253

No. 36941—Probably up to guarantee as 210
36944 " " " as 399
36946 " " " as 400
38952 " " " as 253
48527—Compensating value if No. 188
47322 " " " 291
38197 " " " 440
38201—If No. 297 it is slightly low in phosphoric acid.
38203 } These samples are apparently inverted, as regards registration
38204 } numbers. Are, in this case, up to guarantee.

The remaining 7 samples do not warrant any attempt at identification.
I beg to recommend publication of this report as Bulletin No. 227,

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

DISTRICT OF NOVA SCOTIA—

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
1911.							
May 10	Ceres Brand	46621	A. L. Melvin & Co., Halifax, N.S.	5 lbs.	Nil	Nova Scotia Fertilizer Co., Halifax, N.S.	.....
" 10	Potato Phosphate.	46622	" "	5 "	"	" "	.....
" 12	Slag	46623	Nova Scotia Fertilizer Co., Halifax, N.S.	5 "	"	R. A. Munroe, Glasgow, Scotland.	.....
" 12	Ceres	46624	" "	5 "	"	Vendors	.....
" 12	10%	46625	" "	5 "	"	"	.....
" 15	Eureka Phosphate.	46626	Halifax Seed Co., Halifax, N.S.	5 "	"	Pidgeon Co., Windsor, N.S.	.....
15	Potato Manure	46627	" "	5 "	"	" "	.....
" 16	Soluble Pacific Guano.	46628	G. F. Roy, Kentville, N.S.	5 "	"	Am. Agr. Chem. Co., New York.	.....
" 16	Swift's Lowell Potato Manure	46629	" "	5 "	"	Swift's Fertilizer Co., Boston, Mass.	.....
16	Church's Special	46630	Berwick Fruit Co., Berwick, N.S.	5 "	"	Pidgeon Fertr. Co., Windsor, N.S.	.....
" 16	Bone Meal	46631	" "	5 "	"	Manufacturers: Staackman & Co., Germany. Furnishers: The Nova Scotia Fertilizer Co., Halifax, N.S. Furnishers:	.....
" 16	Acid Phosphate.	46632	" "	5 "	"	The Nova Scotia Fertilizer Co., Halifax, N.S.	.....
" 16	Superphosphate with Potash.	46633	Burgess & Co., Wolfville, N.S.	5 "	"	Bowker Co., Boston	.....
16	Market Garden	46634	" "	5 "	"	" "	.....
16	Grain and Grass	46635	R. E. Harris & Son, Wolfville, N.S.	5 "	"	" "	.....
" 17	Ground Bone	46636	Pidgeon Fertilizer Co., Windsor, N.S.	5 "	"	Vendors	.....
" 19	Basic Phosphate	46637	E. E. McNutt, Truro, N.S.	5 "	"	A. Hickman Co., Bilson, Eng.	.....

FERTILIZERS AS SOLD.

Registration No.	Analysis of Ssmple.	Results of Analysis. Nitrogen, p.c Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c Total, calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Phosphoric Acid, p.c. Reverted or Citrate Soluble.	Phosphoric Acid, p.c. Insoluble.	Phosphoric Acid, p.c. Total.	Phosphoric Acid, p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		p. c.	p. c.	p. c	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
37	As guaranteed	.....	2	.....	.....	2	9	7	2	.....	46621	Up to guarantee.
	As found.....	1·28	1·56	.....	.....	0·45	9·45	9·00	3·12			
38	As guaranteed	.....	2	.....	.....	.....	9	7	4	....	46622	"
	As found.....	1·27	1·53	.....	..	0·75	9	8·25	4·53			
47	As guaranteed	....	.....	.....	.....	.....	14	.....	.....	....	46623	"
	As found.....	....	.....	.....	10·45	4·05	14·50	10·45	.....	.....		
37	As guaranteed	.....	2	.....	....	2	9	7	2	.....	46624	"
	As found.....	2·26	2·75	.....	.....	1 25	9·10	7·85	2·39			
41	As guaranteed	.....	2·5	.....	.....	2	.....	6	10	.....	46625	"
	As found.. ...	2·17	2·64	.....	.....	1	9·85	8·85	9·67			
32	As guaranteed	.....	3	.....	.....	.....	.....	7	2·5	.....	46626	"
	As found.....	1·96	2·38	.....	.....	1·90	9·45	7 55	3·59			
29	As guaranteed	....	2·5	.....	.....	.....	...	6	5	. .	46627	"
	As found.....	1·89	2·30	5·90	1·70	2·30	9·90	7·60	5·58			
14	As guaranteed	2·06	2·5	6	2	1	9	8	1·5	.....	46628	"
	As found.....	1·98	2·42	7·25	2·95	1·25	11·45	10·20	2·02			
114	As guaranteed	1·64	2	4	3	1	8	7	4	.... .	46629	"
	As found.....	1·60	1·94	4·50	3·70	1·05	9·25	8·20	3·86			
275	As guaranteed	4	4·8	6	1	2	9	7	4	.....	46630	"
	As found.. ...	3·48	4·22	5·80	2 85	0·50	9·15	8 65	3·74			
44	As guaranteed	....	3	... .	.....	.....	*	.. ..	....	.....	46631	Below guarantee in phosphoric acid.
	As found.....	2·29	2·78	.....	.....	.....	10·90	....	.....			
	As guaranteed	.....	.....	.....	14	2	16	14	.....	.....	46632	Up to guarantee.
328	As found.....	.....	.....	.....	....	1·65	18·40	16·75	.....			
	As guaranteed	.... .	...	6	4	1	11	10	2	...	46633	"
99	As found.....	.....	.....	5·95	2·35	1·75	11·80	10·05	2·24			
	As guaranteed	2·47	3	4	2	1	7	6	10	.....	46634	"
90	As found.. ...	3·92	4·77	3	3·15	0·85	7	6·15	11·04			
	As guaranteed	·82	1	4	4	1	9	8	4	.....	46635	"
120	As found.....	·90	1·09	4·90	6·40	1	12	11	4·55			
	As guaranteed	.....	2	.....	.. ..	2	9	7	2	.....	46636	Below guarantee in potash; above in phosphoric acid and nitrogen.
37	As found.....	2·82	3·42	.....	.....	2·50	12	9·50	0 29			
302	As guaranteed	.....	.....	.....	15.40	3.85	19.25	.....	.... .	.....	46637	Below guarantee in phosphoric acid.
	As found.....	None.	None.	. ....	. ....	.....	12·25	.....	.....			

* Bone phosphate 50 to 60 = 23 $P_2 O_5$.

R. J. WAUGH, INSPECTOR.

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
						DISTRICT OF NOVA SCOTIA—	
1911.							
May 19	Phosphate Flour	46638	Colchester's Farmers Co-op. Assn., Truro, N.S.	5 lbs..	Nil.	Leeds Phosphate Works, Leeds, Eng.	Register 258 ...
" 19	Complete Stockbridge Manure	46639	J. H. Kent & Co., Truro, N.S.	5 " ..	"	Bowker Co., Boston, Mass.	.....
" 19	Swift's Lowell Ground Bone.	46640	A. J. Walker & Son, Truro, N.S.	5 " ..	"	Swift's Fertilizer Co., Boston, Mass.	.....
						DISTRICT OF PRINCE EDWARD ISLAND—	
May 19	Nitrate of Soda.	46056	Auld Bros., Charlottetown.	5 lbs..	Nil.	Am. Agr. Chem. Co., New York.	.....
" 19	Muriate of Potash.	46057	" "	5 " ..	"	German Kali Works, Stassfurt, Germany	.....
" 19	Superphosphate.	46058	Jno. H. Gill, Charlottetown.	5 " ..	"	Alex. Cross & Sons, Glasgow, Scotland.	.....
" 19	Sulphate of Potash.	46059	Auld Bros., Charlottetown.	5 " ..	"	German Kali Works, Leopoldshall, Stassfurt, Germany.	.....
" 20	Potato Manure .	46060	A. Horne & Co., Charlottetown.	5 " ..	"	Swift's Lowell Fertr. Co., Boston, Mass.	.....
" 20	Ground Bone. ..	46061	" "	5 " ..	"	" "	.....
" 20	Sulphate of Potash.	46062	Auld Bros., Charlottetown.	5 " .	"	Thos. Vickers Sons, Ltd., Manchester, Eng.	.....
" 20	Swan's Thomas Phosphate.	46063	" "	5 " ..	"	Swan Bros., Wigan & Stillington, Eng.	.....
" 20	Swift's Lowell Animal Brand	46064	A. Horne & Co., Charlottetown.	5 " ..	"	Swift's Lowell Fertr. Co., Boston, Mass.	.....
" 20	Bone Fertilizer..	46065	" "	5 " .	"	" "	.....

FERTILIZERS AS SOLD.

Registration No.	Analysis of Sample.	Results of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c. Total calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Phosphoric Acid, p.c. Reverted or Citrate Soluble.	Phosphoric Acid, p.c. Insoluble.	Phosphoric Acid, p.c. Total.	Phosphoric Acid, p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
253	As guaranteed	.....	.....	.....	.....	.....	18	.....	.....	.....	46638	No. 258 on Inspector's invoice, which is Pot. Sulp. Incorrect identification; should be registered as 253. Up to guarantee.
	As found	.....	.....	.....	15·40	3·55	18·95	15·40	.....			
88	As guaranteed	3·29	4	4	2	1	7	6	10	.....	46639	Below guarantee in potash; above in phosphoric acid. Practically is up to guarantee.
	As found	2·86	3·48	4·40	3·90	0·50	9·85	8·35	8·73			
117	As guaranteed	2·46	3	.....	.....	.....	23	.....	.....	.....	46640	Up to guarantee.
	As found	2·24	2·72	.....	.....	.....	25·80	.....	.....			
WM. A. WEEKS, INSPECTOR.												
179	As guaranteed	15	18·23	.....	.....	.....	.....	.....	.....	.....	46056	Up to guarantee.
	As found	14·47	17·57	.....	.....	.....	.....	.....	.....			
305	As guaranteed	.....	.....	.....	.....	.....	.....	.....	50	.....	46057	Registered as 305, up to guarantee.
	As found	.....	.....	.....	.....	.....	.....	.....	49·56			
327?	As guaranteed	.....	.....	*35·0	.....	.....	.....	.....	.....	.....	46058	If correctly identified as 327, then much below guarantee. Apparently some mistake in description of the brand.
	As found	.....	.....	17·75	.....	.....	18·00	.....	.....			
306	As guaranteed	.....	.....	.....	.....	.....	.....	.....	48	.....	46059	Registered as 306, up to guarantee.
	As found	.....	.....	.....	.....	.....	.....	.....	48·28			
114	As guaranteed	1·64	2	4	3	1	8	7	4	.....	46060	Up to guarantee. Registered as 114.
	As found	1·32	1·60	4·45	4·50	0·50	9·45	8·95	3·61			
117	As guaranteed	2·46	3	.....	.....	.....	23	.....	.....	.....	46061	Registered as 117, up to guarantee.
	As found	2·37	2·87	.....	.....	.....	25·25	.....	.....			
324	As guaranteed	.....	.....	.....	.....	.....	16	.....	.....	.....	46062	Probably No. 324, a phosphate. Up to guarantee
	As found	.....	.....	16·70	3·25	0·10	19·85	19·75	.....			
323?	As guaranteed	.....	.....	.....	11·2	2·8	14	11·2	.....	.....	46063	Probably No. 323 and up to guarantee.
	As found	.....	.....	.....	10·05	3·95	14·00	10·05	.....			
116	As guaranteed	2·46	3	4	4	2	10	8	4	.....	46064	Up to guarantee. Registered as 116.
	As found	2·65	3·22	4·75	3·65	2·05	10·45	8·40	5·17			
113	As guaranteed	1·64	2	4	4	1	9	8	3	.....	46065	Registered as 113. Up to guarantee.
	As found	1·40	1·70	4·25	2·60	1·15	9	7·85	3·36			

* (= 16·0 P_2O_5 if $Ca_3(PO_4)_2$ is meant).

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
						DISTRICT OF NEW BRUNSWICK—	
1911.							
May 3	10% Complete Aroostook Potato	45479	The Prov. Chem. Fertr. Co., Ltd, St. John, N.-B.	3 jars.	15	Vendors	
" 3	Special Potato Phosphate.	45480	" "	3 "	15	"	
" 3	Blood, Bone and Potash.	45481	" "	3 "	15	"	
" 4	Swift's Lowell Bone.	45482	P. Nase & Son, St. John, N.-B.	3 "	10	Swift's Lowell Fertr. Co., Boston, Mass.	
" 4	Swift's Animal Brand.	45483	" "	3 "	10	" "	
" 4	Swift's Lowell Potato Phosphate.	45484	" "	3 "	10	" "	
" 8	Thomas Phosphate Powder.	45485	Anglo-Canadian Chem. Co., St. John, N.-B.	3 "	10	H. & E. Albert, London, Eng.	
" 8	Special Odourless Potato Phosphate.	45486	" "	3 "	10	" "	
" 9	Stockbridge Special Complete Manure.	45487	D. J. Seely & Son, St. John, N.-B.	3 "	10	Bowker Fertr. Co., Boston and New York.	
" 9	Bowker's 6% Potato Fertilizer.	45488	" "	3 "	10	" "	
" 16	Bradley's Potato	45489	A. H. Vanwart, Fredericton, N.-B.	3 "	15	The Am. Agr. Chem. Co., New York.	
" 16	Bradley's X.L. Superphosphate of Lime.	45490	" "	3 "	15	" "	
" 17	Read's Farmers Friend.	45491	Phillips Esty & Co., Ltd., Woodstock, N.-B.	3 "	10	" "	
" 17	Bradley's Eclipse Phosphate.	45492	Benn & Turney, Woodstock, N.-B.	3 "	15	" "	
" 19	10% Complete Aroostook Potato.	45493	Porter Manzer, Ltd., Perth, N.-B.	3 "	15	The Prov. Chem. Fertr. Co., Ltd., St. John, N.B.	
" 22	New England Potato Fertilizer.	45494	The Sussex Mercantile Co., Ltd., Sussex, N.-B.	3 "	15	The New England Fertr. Co., Boston, Mass.	
" 22	New England Ground Bone.	45495	" "	3 "	15	" "	
" 22	Farm and Garden Phosphate	45496	W. B. McKay, Ltd., Sussex, N.-B.	3 "	10	Bowker Fertr. Co., Boston, Mass.	
" 23	Pacific Potato Special.	45497	Toombs & Son, Moncton, N.-B.	3 "	10	The Am. Agr. Chem. C., Boston, Mass.	
" 13	Pacific Nobsque Guano for all Crops.	45498	" "	3 "	10	" "	

FERTILIZERS AS SOLD.

Registration No.	Analysis of Sample.	Results of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia if present.	Total, calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. C. FERGUSON, INSPECTOR.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
65	As guaranteed	.....	4	.....	.....	.....	8	.....	10	.....	45479	Up to guarantee.
	As found.....	3·09	3·76	.....	.....	.....	8·70	.....	10·56			
63	As guaranteed	.....	2 5	.....	.....	.....	8	.....	6	.....	45480	"
	As found.....	1·92	2 33	..	.....	.....	10·00	....	5·94			
71	As guaranteed	.....	2	.....	.....	.....	7	.....	4	.....	45481	"
	As found.....	1·58	1·92	.....	.....	.....	9·15	.....	5·27			
113	As guaranteed	1·64	2	4	4	1	9	8	3	....	45482	"
	As found.....	1·43	1·74	4·05	5·10	0·50	9·65	9·15	3·37			
116	As guaranteed	2 46	3	4	4	2	10	8	4	.....	45483	"
	As found.....	2·43	2·96	3·80	5·60	1·85	11·05	9 20	3·97			
110	As guaranteed	2·46	3	4	4	1	9	8	6	.....	45484	"
	As found.....	2·12	2.58	6·95	1·40	0·50	8·85	8·35	5·96			
1	As guaranteed	.....	.....	.....	.....	.....	15	.....	.....	.....	45485	"
	As found.....	.....	....	.....	.....	.....	17·55	..	.....			
142	As guaranteed	2	.....	.....	.....	.....	7·00	....	7·00	...	45486	"
	As found.....	.. ..	.....	.....	.....	Trace.	8·45	8·45	7·12			
88	As guaranteed	3·29	4	4	2	1	7	6	10	.....	45487	"
	As found.....	2 88	3·50	4·45	2·05	1	7·50	6·50	10			
96	As guaranteed	·82	1	4	2	1	7	6	6	.....	45488	"
	As found.....	·77	·94	.. ..	.....	0·70	7·80	7·10	7.26			
3	As guaranteed	2·06	2·5	6	2	1	9	8	3	.....	45489	"
	As found.....	1·84	2·25	3·85	4·40	1·45	9·70	8·25	2·57			
2	As guaranteed	2	2·5	6	2	1	9	8	1·5	... ..	45490	"
	As found.....	1·84	2·24	6·50	2·60	1·65	10 75	9·10	2·59			
11	As guaranteed	3·29	4	4	2	1	7	6	1	.....	45491	"
	As found.....	3·11	3·77	2·50	.....	1·65	7·80	6·15	10·44			
4	As guaranteed	1·25	6	...	2	1	9	8	2	.....	45492	"
	As found.....	·92	1·11	6·10	.....	0·95	10·85	9·90	3·07			
65	As guaranteed	....	4	.....	.....	.....	8	.....	10	.....	45493	"
	As found.....	2·84	3·45	.....	.....	.....	9·10	.....	10·29			
133	As guaranteed	1·64	2	4	3	1	8	7	4	... ..	45494	"
	As found.....	1·40	1·70	5·50	0·70	2·30	8·50	6·20	4·27			
139	As guaranteed	2 46	3	.....	.....	.....	23	.....	.....	.....	45495	"
	As found.....	2·06	2 49	.....	.....	.....	25·75	.....	.....			
94	As guaranteed	1·65	2	6	2	1	9	8	2	.....	45496	"
	As found.....	1·89	2·30	6·90	2·90	1·55	11·35	9·80	3·18			
15	As guaranteed	2·06	2·5	6	2	1	9	8	3	.....	45497	"
	As found.....	1·65	2	6·75	2·45	0·70	9·90	9·20	2·76			
16	As guaranteed	1·03	1·25	6	2	1	9	8	2	.....	45398	"
	As found.....	1	1·22	6·45	3·80	2	12·25	10·25	2·27			

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
							DISTRICT OF QUEBEC—
1911.							
May 3	Fertilizer.....	36936	Eugene Julien, 1228 Rue St. Valier, Que.	5 lbs..	Nil	Am. Agr. Chem. Co., Boston, Mass.	.....
" 3	"	36937	" " .	5 " .	"	" " .	.....
" 3	"	36938	" " ..	5 " ..	"	Leeds Phosphate Works.	.....
" 4	"	36939	P. T. Legaré, 287 Rue St. Paul, Que.	5 " ..	"	Buffalo, New York...	.....
" 4	"	36940	" " ..	5 " ..	"	Am. Agr. Chem. Co.,	.....
" 4	"	36941	" " ..	5 " ..	"	Michigan Carbon Works, Detroit.	.....
" 10	.....	36942	J. B. Reneaud & Cie, Quebec.	5 " ..	"	British Oil and Cake, Liverpool Branch.	.....
" 11	"	36943	P. T. Legaré, 287 Rue St. Paul, Quebec.	5 " ..	"	Alex. Cross & Sons, Glasgow.	.....
" 11	"	36944	" " ..	5 " ..	"	" " ..	.....
" 11	"	36945	" " ..	5 " ..	"	" " ..	.....
							DISTRICT OF ST. HYACINTHE—
May 17	Capelton..	38950	H. Hébert, St. Leonard Junction.	3 Jars	Nil	Capelton Chem. and Fertilizer Co., Buckingham.	.....
" 17	Victor Complete	38951	J. E. Beliveau, St. Leonard Junction.	3 " ..	"	" " ..	Bought in 1910..
" 18	Phosphate of Lime, Thomas Phosphate Flour.	38952	F. Dubuc, Nicolet ..	3 " ..	"	Leeds Phosphate Works, Leeds, England.	.....
" 23	Complete Fertilizer.	38953	L. A. Dubuc, Richelieu.	3 " ..	"	Michigan Carbon Works.	.....
" 24	Farmers' Choice.	38954	J. C. Harbec, St. Jean	3 " ..	"	Buffalo Fertilizer Co., Buffalo, N.Y.	Reg. number not marked on bags. Marked on Order only.
" 24	General Crop...	38955	" ..	3 " ..	"	" " ..	" "

FERTILIZERS AS SOLD.

Registered No.	Analysis of Sample.	Result of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c. Total, calculated as Ammonia.	Phosphoric, Acid p.c. Soluble in Water.	Phosphoric, Acid p.c. Reverted or Citrate Soluble.	Phosphoric, Acid p.c. Insoluble.	Phosphoric, Acid p.c. Total.	Phosphoric, Acid p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
....	As guaranteed	.....	.....	.....	.....	.....	.....	.....	.....	.....	36936	Cannot be identified from information given.
	As found.....	2·03	2·47	7·25	1·45	0·65	9·35	8·70	.....			
....	As guaranteed	..	.....	.....	.....	.....	.....	.....	.....	.....	36937	"
	As found.....	·98	1·19	3·50	2·15	1	6·65	5·65	.....			
253?	As guaranteed	.....	.....	.....	.....	.....	18	.....	.....	.....	36938	Probably No. 253 and up to guarantee.
	As found.....	.....	.....	.....	.....	7·80	22·50	14·70	.....			
....	As guaranteed	.....	.....	.....	.....	.....	.....	.....	.....	.....	36939	Cannot be identified.
	As found.....	.....	...	6·70	4·25	0·35	11·30	10·95	.....			
....	As guaranteed	.....	.....	.....	.....	.....	.....	.....	.....	.....	36940	"
	As found	1·58	1·92	7 75	2·40	1	11·15	10·15	.....			
210?	As guarantded	1·65	2	6	2	1	9	8	6	.....	36941	Doubtfully identified as 210; up to guarantee.
	As found.....	2·00	2·42	6·75	2·65	0·50	9·90	9·40	9·79			
302	As guaranteed	....	.....	.....	15·40	3·85	19·25	.....	.....	.....	36942	Below guarantee in phosphoric acid.
	As found.....	....	.....	.....	14·10	3·50	17·60	.....	.....			
....	As guaranteed	...	.....	.....	.....	.....	.....	.....	.....	.....	36943	Cannot be identified.
	As found.....	1·95	2·37	4·90	6·20	0·30	11·40	11·10	.....			
399?	As guaranteed	.....	2	.....	.....	.....	.....	8	10	.....	36944	Doubtfully identified as 399; up to guarantee.
	As found.....	1·97	2·39	6·95	2·85	1·55	11·35	9·80	9·64			
400?	As guaranteed	.....	4	.....	.....	.....	.....	9	5	.....	36945	Doubtfully identified as 400; up to guaran t .
	As found.. ...	3·51	4·26	4·90	5·95	0·70	11·55	10·85	5·60			

F. X. W. E. BÉLAND, INSPECTOR.

337	As guaranteed	.....	.....	7	.....	.....	.....	.....	.....	.....	38950	Up to guarantee.
	As found.....	.....	.....	7·86	.....	.....	19·90	.....	.....			
83	As guaranteed	2	....	.....	.....	.....	7	.....	3	.....	38951	Registered as No. 83, up to gua antee.
	As found.....	2·02	2·45	.....	.....	.....	13 70	.....	2·85			
253	As guaranteed	.....	.....	.....	.....	.....	18	.....	.....	.....	38952	Probably No 253, and up to guarantee.
	As found.....	.....	.....	.....	.....	.....	19·60	.....	.....			
206	As guaranteed	1·65	2	6	2	1	9	8	4	.....	38953	Up to guarantee.
	As found.....	1·71	2·07	...	.....	0·33	12·35	12·02	4·34			
55	As guaranteed	.....	1	....	.....	.....	.....	8	5	.....	38954	"
	As found.....	·70	·85	.....	.....	1·75	11·85	10·10	5·73			
50	As guaranteed	.....	..	.....	.....	.....	.....	9	3	.....	38955	"
	As found.....	.....	.....	.....	.....	2·85	14·35	11·50	3·55			

J. C. ROULEAU, INSPECTOR.

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
							DISTRICT OF ST. HYACINTHE—
1911.							
May 24	Lesages Superphosphate.	38956	L. A. Nadeau, Iberville P.O., Lemoine.	3 Jars	Nil	Lesage Packing and Fertilizer Co., Montreal.	.....
" 24	Lesage's Fertilizer.	38957	" "	3 "	"	" "	.....
" 24	Extra High Grade Fertilizer.	38958	" "	3 "	"	" "	.....
" 24	Lesage's Complete Fertilizer	38959	" "	3 "	"	" "	.....
							DISTRICT OF MONTREAL—
May 4	Sure Growth Manure.	40671	Wm. Ewing Co., 184 McGill St., Montreal.	3 Jars	Nil	W. A. Freeman Co., Ltd.	.....
" 4	Potato Manure..	40672	" "	3 "	"	" "	.....
" 4	Tobacco Manure	40673	" "	3 "	"	" "	No number on bag.
" 4	Tankage	40674	" "	3 "	"	" "	.....
" 4	Celery and Early Vegetable Manure.	40675	" "	3 "	"	" "	.....
" 6	Aroostock Complete Manure.	40676	Wm. Rennie Co., Ltd., McGill St., Montreal.	3 "	"	The Am. Agr. Chem. Co.	.....
" 6	Crocker's Complete Manure.	40677	" "	3 "	"	" "	.....
" 9	Victor.....	40678	Frs. Rivet, Joliette, P.Q.	3 "	"	Capelton Chem. and Fert. Co.	.....
" 13	Ideal Wheat and Corn.	40679	Thos. Cogland, Herdman, P.Q.	3 "	"	Buffalo Fert. Co.....	.....
" 13	Farmers' Choice	40680	" "	3 "	"	.....	.....
" 13	Grass and Grain	40681	" "	3 "	"	Schaal Sheldon Fert. Co.	.....
" 13	Bradley B.....	40682	Wm. Anderson, Herdman, P.Q.	3 "	"	.....	.....
" 13	Bradley Alkaline	40683	" "	3 "	"	.....	.....

FERTILIZERS AS SOLD.

Registration No.	Analyis of Sample.	Results of Analysis. Nitrogen, p.c: Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c: Total, calculated as Ammonia.	Phosphoric Acid, p.c.: Soluble in Water.	Phosphoric Acid, p.c.: Reverted or Citrate Soluble.	Phosphoric Acid, p.c.: Insoluble.	Phosphoric Acid, p.c.: Total.	Phosphoric Acid, p.c.: Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. C. ROULEAU, INSPECTOR—*Concluded.*												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
161	As guaranteed	1·65	2	....	7	1	8	....	2	.....	38956	Slightly below guarantee in nitrogen, above in phosphoric acid.
	As found.....	·89	1·08	.....	....	3·97	12·50	8·60	2·56			
162	As guaranteed	1 65	2	. .	7	1	8	.....	5	.....	38957	Up to guarantee.
	As found.....	1·02	1·23	.....	.....	2 50	10·45	7·95	6·69			
329	As guaranteed	1·65	2	. . .	7	2	9	7	7	.....	38958	"
	As found.....	·98	1·19	.....	. ..	1·37	12·40	11·03	7·83			
163	As guaranteed	1	1·25	.....	7	1	8	....	1	.....	38959	"
	As found.....	·61	·76	.....	.....	1·95	10·50	8·55	1·98			
J. J. COSTIGAN, INSPECTOR.												
144	As guaranteed	2·89	3·5	5	3	·25	8·25	8	3	.....	40671	Up to guarantee.
	As found.....	2·88	3·5	6·50	1·70	2·20	10·40	8·20	4·67			
145	As guaranteed	2·47	3	5	3	·25	8 25	8	5	.....	40672	"
	As found.....	2·14	2·60	3·65	4·75	2·40	10·80	8·40	6·27			
149	As guaranteed	2 47	3	5	2	·25	7·25	7	5	.....	40673	Registered as 149, up to guarantee.
	As found.....	3·25	3·94	4	6·35	2·35	12·70	10·35	4·86			
150	As guaranteed	4·12	5	·5	12	·5	13	12	.....	.....	40674	Up to guarantee.
	As found.....	5·76	7	3·90	6·60	4·25	14·75	10·50	...			
148	As guaranteed	4·12	5	5·5	3 5	·25	9·25	9	5	.....	4 675	Below guarantee in phosphoric acid. Slightly above in potash and nitrogen.
	As found.....	4·41	5·35	2·35	4·52	0·35	7·22	6·87	6·16			
376	As guaranteed	2·47	3	4	2	1	7	6	10	....	40676	Up to guarantee.
	As found.....	2 41	2·93	4·05	3·20	0·95	8·10	7·25	10·42			
193	As guaranteed	·82	1	6	2	1	9	8	4	.....	40677	"
	As found.....	·82	1	5·65	5·30	0·50	11·45	10·95	5·48			
83	As guaranteed	....	2	.....	..	.....	7	.....	3	...	40678	"
	As found.....	1·69	2·05	.....	.....	.... ..	9	.....	6·69			
56	As guaranteed	.....	2	... .	...	.....	.....	9	5	...	40679	"
	As found....	1·47	1·78	. .	.....	1·60	12·90	11·30	5·37			
55	As guaranteed	.. .	1	...	.....	.....	....	8	5	.....	40680	"
	As found.....	2·90	3·52	.....	.....	1·45	8·95	7·50	7·08			
356	As guaranteed	1·23	1·5	6	2	1	9	8	7	.....	40681	"
	As found.....	1·43	1·73	8·40	0·15	1	9·55	8·55	6·93			
259	As guaranteed	·82	1	6	2	1	9	8	4	....	40682	"
	As found.....	·92	1·12	5·55	3·20	1·35	10 10	8·75	4·79			
23	As guaranteed	.....	.....	9	2	1	12	11	2	... ..	40683	"
	As found.....	.....	.....	8·50	3·15	1·85	13·50	11·65	3·94			

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
							DISTRICT OF MONTREAL—
1911.							
May 23	Milsom's Buffalo Guano.	40685	F. N. McKough, Hemmingford, P.Q.	3 jars	Nil		
" 23	Farmers' Choice	40686	R. W. Blair, Hemmingford, P.Q.	3 "	"		
" 23	Bowker's Potash Bone.	40687	J. McCause, Hemmingford, P.Q.	3 "	"		
" 23	Bowker's Sure Crop.	40688	" "	3 "	"		
" 30	Crocker's New General Crop.	40689	Lepailleur frères, Lachine, P.Q.	3 "	"		
" 30	Celery and Potato Special.	40690	H. Dery, Jac. Cartier Sq., Montréal.	3 "	"		
							DISTRICT OF OTTAWA—
May 9	Standard	43247	The Standard Fertilizer and Chemical Co., Smith's Falls.	3 lbs.	Nil	Vendors	
" 10	Corn Special	43248	Capelton Chemical and Fertilizer Co., Buckingham.	3 "	"	"	
" 10	Royal Canadian.	43249	" "	3 "	"	"	
" 10	Victor Potato Special.	43250	" "	3 "	"	"	
" 10	Victor	43251	" "	3 "	"	"	
" 18	Farmers' Choice.	43252	Conklin & Thompson, Brockville.	3 "	"	Buffalo Fertilizer Co., Buffalo, N.Y.	
" 18	Read's Standard Superphosphate	43253	A. E. Cameron, Brockville.	3 "	6	Am. Agr. Chem. Co., New York.	
" 18	Read's Practical Potato Special	43254	" "	3 "	6	" "	
" 18	Read's High Grade Farmer's Friend.	43255	" "	3 "	6	" "	
" 19	Victor Lawn	43256	Graham Bros., Ottawa.	3 "	Nil	Capelton Chem. and Fertr. Co., Buckingham.	

FERTILIZERS AS SOLD.

Registration No.	Analysis of Sample.	Results of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c. Total, calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Phosphoric Acid, p.c. Reverted or Citrate Soluble.	Phosphoric Acid, p.c. Insoluble.	Phosphoric Acid, p.c. Total.	Phosphoric Acid, p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
J. J. COSTIGAN, INSPECTOR—*Concluded.*												
264	As guaranteed	·82	1	6	2	1	9	8	4	...	40685	Up to guarantee.
	As found.....	·85	1·03	6·15	2·50	1	9·65	8·65	6·48			
55	As guaranteed	.....	1	....	.....	.....	.....	8	5	.....	40686	"
	As found.....	1·10	1·33	.....	.....	0·85	14·05	13·20	5·12			
98	As guaranteed	·82	1	4	2	1	7	6	2	.....	40687	"
	As found.....	1·26	1·53	6·65	2·05	1·05	9·75	8·70	2·47			
97	As guaranteed	·82	1	6	2	1	9	8	2	.....	40688	"
	As found.....	1·28	1·55	6	3·75	1·55	11·30	9·75	2·43			
301	As guaranteed	·82	1	6	2	1	9	8	1	.....	40689	"
	As found.....	·78	·95	6·50	2·25	0·50	9·25	8·75	1·56			
57	As guaranteed	.....	2	.....	..	.....	...	8	10	.....	40690	"
	As found.....	1·40	1·70	7·10	.....	....	11·50	.....	10·85			
J. A. RICKEY, INSPECTOR.												
280	As guaranteed	2	2·4	8	1	5	14	9	2	.....	43247	Up to guarantee.
	As found.....	1·46	1·77	8·50	3·10	3·25	14·85	11·60	2·89			
82	As guaranteed	.....	1	..	.....	.....	8	.....	3	.....	43248	"
	As found.....	1·26	1·53	.....	...	.....	10·15	.....	4·19			
84	As guaranteed	.....	4	..	.....	....	9	.....	5	....	43249	"
	As found.....	3·25	3·94	...	.....	...	11·30	..	6·27			
336	As guaranteed	...	2	....	.....	.....	...	6	8	.....	43250	"
	As found.....	1·65	2	...	.....	2·05	8·30	6·25	9·23			
83	As guaranteed	.....	2	.....	....	.....	.....	7	3	.....	43251	"
	As found.....	1·51	1·85	.....	...	2	9·25	7·25	3·32			
55	As guaranteed	·8	1	6	2	1	9	8	5	...	43252	"
	As found.....	·81	·99	3·90	4	1·10	9	7·90	5·09			
233	As guaranteed	·82	1	6	2	1	9	8	4	.....	43253	"
	As found.....	·84	1·02	7	0·95	1·10	9·05	7·95	4·24			
9	As guaranteed	·82	1	3	1	1	5	4	8	...	43254	"
	As found.....	·87	1·05	3·35	0·75	0·80	5	4·10	8·99			
11	As guaranteed	3·29	4	4	2	1	7	6	10	.....	43255	"
	As found.....	2·86	3·47	4·80	1·60	0·60	7	6·40	10·31			
336	As guaranteed	.....	2	.	.....	.....	.	6	8	.....	43256	"
	As found.....	1·40	1·70	....	.....	2·20	9·55	7·35	8·36			

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
							DISTRICT OF KINGSTON—
1911.							
May 1	Sea Fowl Guano.	48527	Earl Spencer, Picton.	3 lbs..	10	Am. Agr. Chem. Co., Buffalo.	No tag on the bag.
" 1	High Grade Potash Compound	48528	" " ..	3 " ..	10	" " ..	.....
" 1	Complete Manure.	48529	" " .	3 " ..	10	" " ..	.....
" 2	Bone and Potash	48530	Thompson & Macdonald Co., Cobourg.	3 " ..	10	W. A. Freeman Co., Hamilton.	.....
" 2	Lawn Fertilizer.	48531	" " ..	3 " ..	10	" " ..	.....
							DISTRICT OF TORONTO—
May 5	Potash Compound.	47303	The Harris Abattoir Co., Ltd., Toronto.	5 lbs..	15	Vendors.....	.....
" 9	Bradley's B. D. Sea Fowl Guano.	47304	Titherington Bros., St. Catherines.	5 " .	15	Am. Agr. Chem. Co., Ltd., Buffalo, N.Y.	.....
" 9	Crocker's Best Potash Fertiliser.	47305	" "	5 " ..	15	" "	.....
" 9	Crocker's Dissolved Phosphate	47306	The St. Catherines Cold Storage and Forwarding Co., Ltd., St. Catherines.	5 " ..	15	" "	.....
" 9	Fine Ground Bone.	47307	" "	5 " ..	15	" "	No registration no. on bags.
" 10	Ideal Wheat and Corn.	47308	Cyrus Field, Niagara on the Lake.	5 " ..	15	Buffalo Fertilizer Co., Buffalo, N.Y.	.....
" 10	Extra Phosphate and Potash.	47309	" "	5 " ..	15	" "	.....
" 10	High Grade Special.	47310	C. E. Fisher & Sons, Queenston.	4 " ..	15	Am. Agr. Chem. Co. Buffalo, N.Y.	.....
" 10	Crocker's Wheat and Corn.	47311	" "	4 " ..	15	" "	.....
" 11	Crocker's New York Special Phosphate.	47312	Jno. Spencer, Port Colborne.	5 " ..	15	" "	.....

FERTILIZERS AS SOLD.

Registration No.	Analysis of Sample.	Results of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c. Total, calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Phosphoric Acid, p.c. Reverted or Citrate Soluble.	Phosphoric Acid, p.c. Insoluble.	Phosphoric Acid, p.c. Total.	Phosphoric Acid, p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
JAS. HOGAN, INSPECTOR.												
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
188	?As guaranteed	2·06	2·5	6	2	1	9	8	1·5	....	48527	If correctly identified, slightly low in nitrogen but above in phosphoric acid and potash.
	As found.... .	1·24	1·51	6·30	4·15	0·80	11·25	10·45	2·64			
182	As guaranteed	1·65	2	6	2	1	9	8	10	....	48528	Practically up to guarantee.
	As found.....	·95	1·16	6·50	4·50	0·30	11·30	11·00	10·16			
394	As guaranteed	3·29	4	6	2	1	9	8	7	.....	48529	Below guarantee in nitrogen; above in phosphoric acid and potash.
	As found.....	1·22	1·49	6·50	5·25	0·85	12·60	11·75	8·28			
147	As guaranteed	1·65	2	5·5	3·5	·25	9·25	9	6	.....	48530	Registered as No. 147—up to guarantee.
	As found.....	2·62	3·17	1·10	7·65	1·70	9·45	8·75	9·64			
157	As guaranteed	2·47	3	5·5	3·5	·25	9·25	9	4	....	48531	Registered as No. 157—up to guarantee.
	As found.....	2·59	3·15	4·30	5·40	3·05	12·75	9·70	2·39			
H. J. DAGER, INSPECTOR.												
292	As guaranteed	2	2·4	...	...	.....	11	8	10	...	47303	Up to guarantee.
	As found.....	2·88	3·50	.....	.....	2·05	11	8·95	9·46	.....	.....	
188	As guaranteed	2·06	2·5	6	2	1	9	8	1·5	.....	47304	"
	As found.....	1·94	2·36	6·90	3·25	0·75	10·90	10·15	2·43	.....	.....	
194	As guaranteed	1·65	2	6	2	1	9	8	10	....	47305	"
	As found.....	1·35	1·64	6·70	3·75	1·30	10·75	10·45	9·90	.....	.....	
312	As guaranteed	.....	....	12	2	1	15	14	...	.....	47306	"
	As found.....	.....	.....	11·50	4·60	3·35	19·45	16·10	....	.....	.....	
238	As guaranteed	2·47	3	.....	....	...	22·88	.....	.....	.....	47307	Registered as 238
	As found.....	2·52	3·06	.....	.....	.....	23·35	.....	.....	.....	.....	
56	As guaranteed	..	2	...	....	.....	....	9	5	..	47308	"
	As found.	1·24	1·51	....	....	1·90	11·85	9·95	6·54	....	...	
52	As guaranteed	.. ..	....	....	....	.....	.....	10	8	.....	47309	"
	As found.....	.....	.....	.....	.....	2·05	13·65	11·60	8·49	.....	.....	
381	As guaranteed	1·65	2	6	2	1	9	8	4	.....	47310	"
	As found.....	1·51	1·85	6·90	3·10	0·40	10·40	10	4·54	.....	.....	
195	As guaranteed	2·06	2·5	6	2	1	9	8	1·5	.....	47311	"
	As found.....	2·10	2·55	6·75	2·65	1·15	10·55	9·40	2·14	.....	.....	
192	As guaranteed	.....	.....	8	2	1	11	10	8	.....	47312	"
	As found.....	.....	.....	7·95	1·95	1·85	11·75	9·90	9·01	.. ...	.....	

Date of Collection.	Designation.	No. of Samples.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
							DISTRICT OF TORONTO—
1911.							
May 11	Celery and Potato Special.	47313	J. E. Barrick, Port Colborne.	5 lb.	15	Buffalo Fertilizer Co., Ltd., Buffalo, N.Y.	
" 12	High Grade Manure.	47314	B. L. Edgecombe, Dunnville.	5 "	15	" "	
" 12	Vegetable and Potato.	47315	" "	5 "	15	" "	
" 12	Bradley's B. D. Sea Fowl Guano.	47316	Chas. H. Weaver, Dunnville.	5 "	15	Am. Agr. Chem. Co., Buffalo, N.Y.	
" 13	Sure Growth	47317	W. A. Freeman Fertilizer Co., Ltd., Hamilton.	5 "	15	Vendors	
" 13	Tobacco Manure	47318	W. A. Freeman Fer. Co., Ltd., Hamilton.	5 "	15	Vendors	
" 16	H Brand. Bone, Blood & Flesh.	47319	W. Harris & Co., Toronto.	5 "	15	"	
" 18	Fine Steamed Bone.	47320	The Wm. Davies & Co., Ltd, Toronto.	5 "	15	"	
" 18	General Vegetabl and Market Garden.	47321	" "	5 "	15	"	
" 18	Harab Cereal, No. 6.	47322	The Harris Abattoir Co., Ltd., Toronto.	5 "	15	"	
							DISTRICT OF LONDON—
May 15	Celery and Potato Special.	48052	G. Carter, Son & Co., St. Marys.	3 Jars	Nil.	Buffalo Fertilizer Co., Buffalo.	
" 15	Ideal	48053	" "	3 "	"	" "	
" 15	Extra Phosphate Special.	48054	" "	3 "	"	" "	
" 15	Farmers' Choice.	48055	" "	3 "	"		
" 16	Bone Meal	48056	Jno. A. Andrew, Stratford.	3 "	15	W. A. Freeman, Hamilton.	
" 16	Celery and Potato Fertilizer.	48063	J. G. Eidt, Berlin	3 "	10	Buffalo Fertilizer Co., Buffalo.	
" 16	Potato Manure	48064	" "	3 "	10	W. A. Freeman Co., Hamilton.	See label on package for Dept.
" 17	Bone Meal	48073	Struthers & Church, Galt.	3 "	15	" "	

FERTILIZERS AS SOLD.

Registration No.	Analysis of Sample.	Results of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c. Total, calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Phosphoric Acid, p.c. Reverted or Citrate Soluble.	Phosphoric Acid, p.c. Insoluble.	Phosphoric Acid, p.c. Total.	Phosphoric Acid, p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
57	As guaranteed	.....	2	.....	.....	.....	.....	8	10	.....	47313	Up to guarantee.
	As found.....	1·22	1·48	.....	.....	0·65	8·55	7·90	12·42	.....	.....	
60	As guaranteed	.....	4	.....	.....	.....	.....	7	10	.....	47314	"
	As found.....	2·77	3·36	.....	.....	0·20	7·95	7·75	11·10	.....	.....	
58	As guaranteed	...	3	.....	.....	.....	.....	8	7	.....	47315	"
	As found.....	2·62	3·18	.....	.....	0·55	9·35	8·80	8·14	.....	.....	
188	As guaranteed	2·06	2·5	6	2	1	9	8	1·5	.....	47316	"
	As found.....	1·59	1·94	7·05	2·10	1·20	10·35	9·15	1·81	.....	.....	
144	As guaranteed	2·89	3·5	5	3	0·25	8·25	8	3	.....	47317	"
	As found.....	2·21	2·68	4·50	5·35	1·85	10·70	9·85	3·49	.....	.....	
149	As guaranteed	2·47	3	5	2	·25	7·25	7	5	.....	47318	"
	As found.....	2·19	2·66	7·50	3·40	0·30	11·20	10·90	9·60			
285	As guaranteed	7·15	8·69	0·67	3·90	2·74	7·31	4·57	.....	.....	47319	"
	As found.....	6·62	8·04	0·50	5·30	1·45	7·25	5·80	.....			
366	As guaranteed	4·93	6	.....	.....	..	22·0	.....	.....	.....	47320	Below guarantee in total phosphoric acid.
	As found.....	5·60	6·80	.....	.....	.....	17·25	.	.....			
362	As guaranteed	4·11	5	1	6	2	9	7	5	.....	47321	Up to guarantee
	As found.....	3·61	4·39	0·50	7·10	4·35	11·95	7·60	4·73			
291	As guaranteed	2	2·4	.....	.....	.....	12·5	9	3	.....	47322	Low in phosphoric acid, but high in nitrogen. Some doubt in identification.
	As found.....	3·58	4·35	...	.....	4·00	9·02	5·02	3·66			

JNO. TALBOT, ACTING INSPECTOR.

57	As guaranteed	.....	2	.	.....	.....	.....	8	10	.....	48052	Up to guarantee.
	As found.....	1·69	2·05	..	.....	1·90	9·40	7·50	9·50			
56	As guaranteed		2	.....	.....	.....	. .	9	5	.....	48053	"
	As found.....	1·46	1·78	.....	...	1·85	10·70	8·85	4·57			
52	As guaranteed	....	..	.....	.....	.....	.....	10	8	.....	48054	Practically up to guarantee.
	As found.. ..	.....	.....	.....	..	2·30	11·20	8·90	8·20			
55	As guaranteed	.....	1	.....	.....	.....	.....	8	5	.....	48055	Up to guarantee.
	As found.....	1·05	1·27	3·50	.....	1·90	10·15	8·35	4·56			
146	As guaranteed	2·47	3	.....	20	1	21·0	20	.....	.....	48056	Below guarantee in available phosphoric acid
	As found.. ...	3·71	4·51	....	8·80	13·02	21·80	8 80	.....			
57	As guaranteed	.....	2	.....	.....	.....	.....	8	10	....	48063	Slightly below guarantee in potash.
	As found.. ...	1·56	1·90	..	..	1·45	8·70	7·25	8·91			
145	As guaranteed	2·47	3	5	3	·25	8·25	8	5	.....	48064	Up to guarantee.
	As found.....	3·24	3·93	3·15	9·45	0·95	13·55	12·60	5·98			
157	As guaranteed	2·47	3	5·5	3·5	·25	9.25	9	4	....	48073	"
	As found.....	3·48	4·23	6·75	5·45	0·10	12·30	12·20	3·53			

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report.
								DISTRICT OF WINDSOR—
1911.								
May 10	Sure Growth....	48029	Saml. May, Windsor, Ont.	3 jars.	13	W. A. Freeman Co., Hamilton.		
" 10	Lawn Fertilizer.	48030	" " ..	3 " .	13	" "		
" 11	Homestead High Grade.	48031	Jas. D. Soutar, Chatham, Ont.	3 " .	Nil	Michigan Carbon Works, Detroit, Mich.		
" 11	Homestead Special Beet Fertr.	48032	" " ..	3 " .	"	" "		
" 11	Ideal Wheat and Corn.	48033	" " ..	3 " .	"	Buffalo Fertr. Co., Buffalo, N.-Y.		
" 11	Tobacco Manure	48034	Saml. Glenn & Son, Chatham, Ont.	3 " .	"	W. A. Freeman Co., Hamilton.		
" 12	Bone Meal.....	48036	Geo. Kirk, Woodstock, Ont.	3 " .	10	" "		
" 12	Crocker's Best Potash.	48047	McIntosh Coal Co., Woodstock, Ont.	3 " .	Nil	Am. Agr. Chem. Co., Buffalo, N.-Y.		
" 12	Special Phosphate.	48049	" " ..	3 " .	"	" "		
								DISTRICT OF VANCOUVER—
						Manufacturer.	Furnisher...	
May 23	Bone Meal.....	38195	Johnstone's Nursery, Westminister Road, Vanc.	5 lb ..	25	Portland Seed Co.	Brown Bros., Vanc.	Not reg.....
" 23	"	38196	A. R. MacDougall, Westminister Road, Vanc.	5 " ..	25	Lilly & Co., Seattle.	M. J. Henry, Vanc.	" ....
" 23	Tankage.....	38197	Brown Bros., 21st Ave., Mt. Pleasant	6 " ..	Nil	P. Burns, Vanc.	Brackman-Ker, Vanc.	" ...
" 23	Blood.....	38198	" " ..	6 " ..	"	" ..	" ..	" ....
" 23	Bone Meal.....	38199	Brackman-Ker Millilg Co., Vanc.	5 " ..	25	Pacific Whaling Stn., Victoria.	.....	Sample taken from bin. Could not say if tag carried reg. number.
" 23	Beef Scraps.....	38200	" " ..	5 " ..	30	Swift & Co., Chicago.	.....	No. reg. No.

FERTILIZERS AS SOLD.

Registration No.	Analysis of Sample.	Results of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia if present.	Nitrogen, p.c. Total, calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Phosphoric Acid, p.c. Reverted or Citrate Soluble.	Phosphoric Acid, p.c. Insoluble.	Phosphoric Acid, p.c. Total.	Phosphoric Acid, p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
JNO. TALBOT, INSPECTOR.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
144	As guaranteed	2·89	3·5	5	3	·25	8·25	8	3	.....	48029	Up to guarantee.
	As found.....	2·61	2·17	4	5·45	1·40	10·85	9·45	2·89			
157	As guaranteed	2·47	3	5·5	3·5	·25	9·25	9	4	.....	48030	Slightly below in nitrogen, but above in other constituents.
	As found.....	1·57	1·90	6 55	3·95	0·25	10·75	10·50	4·73			
209	As guaranteed	1·65	2	6	2	1	9	8	5	.....	48031	Up to guarantee.
	As found.....	1·55	1·88	6·30	4·15	0·80	11·25	10·45	5·56			
208	As guaranteed	1·65	2	6	2	1	9	8	5	.....	48032	"
	As found.....	1·58	1·92	6·30	1 55	1·60	9·45	7·85	6·45			
56	As guaranteed	.....	2	.....	....	...	.....	9	5	.....	48033	Practically up to guarantee.
	As found.....	·87	1·06	.....	..	1·20	11·85	10·65	6·14			
149	As guaranteed	2·47	3	5	2	·25	7·25	7	5	...	48034	Up to guarantee.
	As found.....	2·54	3·09	3	4·85	1	8·85	7·85	5·37			
146	As guaranteed	2·47	3	....	20	1	21	20	.....	....	48036	"
	As found.....	3·36	4·08	.....	....	7·30	23·15	15·85	.....			
191	As guaranteed	1·65	2	6	2	1	9	8	10	....	48047	"
	As found.....	1·14	1·39	3·70	3·20	2·15	9·05	6·90	10·20			
192	As guaranteed	.....	.....	8	2	1	11	10	8	.....	48049	"
	As found.....	.....	....	9·70	1·55	0·50	11·75	11·25	8·34			
J. F. POWER, INSPECTOR.												
....	As guaranteed	....	....	.....	.....	.....	....	.....	.....	....	38195	Not registered.
	As found.....	2·49	3·02	.....	.....	.....	26·50	.....	.....			
297	As guaranteed	3	.....	.....	17	5	22	..	....	.....	38196	Registered as 297. Up to guarantee.
	As found.....	3·52	4·27	.....	...	.....	28 15	....	.. .			
440	As guaranteed	7·59	9·49	Trace.	5·87	2 91	8·78	5·87	.....	.....	38197	Registered as 440. Nitrogen low; phosphoric acid high.
	As found.....	5·75	6·89	0·75	9 28	6·72	16·75	10·03	.....			
439	As guaranteed	10·74	13·04	.....	3·00	·77	3·77	3·00	. . .	....	38198	Registered as 439. Up to guarantee.
	As found	12·22	14·84	.....	7 84	2·16	9·00	7·84	....			
355	As guaranteed	....	3·5	.....	.....	.....	26	.....	.....	....	38199	Registered as 355. Up to guarantee.
	As found.....	3·42	4·15	.....	.....	.....	26·50	.....	.....			
....	As guaranteed	.....	.....	...	.....	....	.....	.....	..	.....	38200	Not registered.
	As found.....	... .	.....	.....	.....	.....	13·90	.....	.....			

Date of Collection.	Designation.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report.
						DISTRICT OF VANCOUVER—		
1911.						Mfr.	Fur.	
May 23	Bone Meal.....	38201	Rennies Seed Store, Granville Street, Vancouver.	6 lbs..	25	C. H. Lilly Co., Seattle.	M. J. Henry Co., Vanc.	Noreg. number.
" 23	Fertilizer.....	38202	" " .	3,pkts.	90	Wm. Rennie, Toronto.	.....	.....
" 23	"	38203	Royal Nurseries, Granville Street, Vancouver.	6 lbs..	30	.....	Brackman-Ker.	.....
" 23	"	38204	" " ..	6 " ..	25	Victoria Chem. Co., Vict., B.C.	.....	.....
						DISTRICT OF VICTORIA—		
June 9	Bone Meal.....	47601	The Brackman-Ker Milling Co., Ltd., Victoria, B.C.	5 lbs..	10	Pacific Whaling Co., Ltd., Vancouver.	.....	.....
" 9	Blood Meal.....	47602	" " ..	5 " ..	20	P. Burns & Co., Ltd., Vancouver.	.....	.....
" 9	Whale Guano...	47603	" " ..	5 " ..	15	Pac. Whaling Co., Ltd., Vancouver.	.....	.....
" 15	Fertilizer A.....	47604	Victoria Chem. Co., Ltd., Victoria, B.C	5 " ..	25	Vendors....	.....	.....
" 15	Fertilizer B. . .	47605	" " ..	5 " ..	25	"	.....	.....
" 15	Fertilizer C....	47606	" " ..	5 " ..	25	"	.....	.....
" 15	Fertilizer D....	47607	" " ..	5 " ..	25	"	.....	.....
" 15	Nitrate of Soda.	47608	" " ..	5 " ..	25	.....	Parrott&Co. San Francisco, Cal.	.....
" 15	Superphosphate of Lime.	47609	" " ..	5 " ..	25	Vendors....	.....	.....
" 19	Bone and Blood Fertilizer.	47629	Fredr. Savory, Victoria, B.C.	5 " ..	25	Frye, Bruhne & Co, Seattle, Wash.	.....	.....

FERTILIZERS AS SOLD.

Registration No.	Analysis of Sample.	Results of Analysis. Nitrogen, p.c. Total, including that of Nitric Acid or Ammonia.	Nitrogen, p.c. Total, calculated as Ammonia.	Phosphoric Acid, p.c. Soluble in Water.	Phosphoric Acid, p.c. Reverted or Citrate Soluble.	Phosphoric Acid, p.c. Insoluble.	Phosphoric Acid, p.c. Total.	Phosphoric Acid, p.c. Total available.	Potash.	Moisture.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
....	As guaranteed	3	.....	....	17	5	22	.....	.....	.....	38201	Registered as 297. Slightly below guarantee in total phosphoric acid.
	As found.....	3·10	3·76	.....	....	.....	20·50	.. .	.....			
276	As guaranteed	2·00	2·5	8	.....	.....	...	.....	2	.....	38202	Up to guarantee.
	As found.....	1·52	1·85	12·35	.....	. .	18·70	... .	4·90			
355	As guaranteed	.....	3·5	....	.....	.....	26	.....	.. .	....	38203	Much below guarantee in phosphoric acid and nitrogen. May be incorrectly described.
	As found.....	·22	·27	11·93	3·62	0·40	15·95	15·45	.....			
80	As guaranteed	.. ...	.....	.....	.....	.....	16	.....	.....	.....	38204	Much above guarantee in phosphoric acid. Perhaps this and the preceding are reversed. Reported here as given on inspectors invoice.
	As found.....	.....	. ..	.....	.....	.....	26·50	.....	. ..			
D. O'SULLIVAN, INSPECTOR.												
355	As guaranteed	.....	3·5	.....	.....	.....	26	.....	.. .	.... ..	47601	Up to guarantee.
	As found.....	2·85	3·47	.....	.....	.....	26·70	. ....	.....			
....	As guaranteed	10·74	13·04	.....	3	·77	3·77	3	.....	.... .	47602	Registered as 439. Up to guarantee.
	As found.....	12·20	14·82	trace.	3·70	0·10	3·80	3·70	.....			
....	As guaranteed	... .	.... .	.....	.....	.....	....	....	.....	.....	47603	Not registered.
	As found.....	.....	.....	.....	....	....	3·10	....	3·31			
73	As guaranteed	4	.....	.....	.....	.....	10	.. .	7	.....	47604	Slightly below guarantee in nitrogen. Above in phosphoric acid.
	As found.....	2·84	3·45	.... .	.....	.....	13·25	.....	7·87			
74	As guaranteed	3·5	. . .	. . .	.....	. ...	10	...	11	.....	47605	Below guarantee in potash.
	As found.....	3·30	4·01	.....	.....	.....	10·25	....	8·78			
75	As guaranteed	...	.....	.... .	...	.....	12·5	.....	11	....	47606	Up to guarantee.
	As found.. ...	.....	.....	.....	.....	.....	15·55	..	10·63			
76	As guaranteed	2·5	.....	.....	.....	....	10	.....	11	.....	47607	"
	As found.....	2·20	2·67	.....	.....	.....	14·85	.....	12·55			
77	As guaranteed	15·5	.... .	.....	.....	.....	.....	.....	.. .	.. ...	47608	"
	As found.....	14·78	17·95	.....	...	.....	.. ...	.....	. . .			
80	As guaranteed	.....	.. ...	... .	.....	.....	16	.....	.....	.....	47609	"
	As found.....	.....	.....	.....	.....	.....	18·55	.. ..	.... .			
....	As guaranteed	.....	.....	.....	.....	.....	....	.....	.....	.....	47629	Not registered.
	As found.....	.....	....	.....	.....	.....	20·65	.....	.....			

APPENDIX D.

BULLETIN No. 228—A STUDY OF MAPLE SYRUP.

OTTAWA, October 18, 1911.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to submit herewith a report upon 456 samples of maple syrup, and would preface the report as follows:—

Standards for the judging of maple sugar and maple syrup were promulgated by order in council under section 26 of the Adulteration Act, on March 22 of this year; becoming legally effective on April 25. The following is a synopsis of these standards as applied to maple syrup.

'Maple syrup is syrup, made by evaporation of maple sap, or by the solution of maple concrete in water; and contains not more than thirty-five (35) per cent of water. The total ash, reckoned as a percentage on the dry matter of the syrup, shall not be less than 0·5 (five-tenths of one per cent). The malic acid, determined in prescribed manner, shall not be less than 0·4 (four-tenths of one per cent), reckoned as a percentage on the dry solids. The lead subacetate number, determined as prescribed, shall not be less than 2·2 (two and two-tenths).'

These limits were fixed as a result of large experience upon commercial samples of maple syrup. The data referred to will be found in Bulletins 45, 102, 120, 141, 155, 157 and 214, issued from these laboratories, and cover more than one thousand samples. Most of these are market syrup, obtained in the usual way by our inspectors; but many of them carried trustworthy guarantees of genuineness, and a considerable number were made under the direct supervision of a member of our staff.

It was believed that the standard limits enacted as described were so written as to make it impossible that a sample of genuine maple syrup made entirely from maple sap, could be judged other than genuine. Samples more or less sophisticated might escape detection; but no danger of stamping a genuine maple syrup as adulterated, was thought to be possible.

Nevertheless disquieting rumours found currency, to the effect that maple syrup samples of undoubted genuineness were being called in question, under our standards; and the matter appeared to be sufficiently serious to justify investigation.

With this end in view, I caused a large number of requests to be sent to makers of maple syrup, asking them to furnish me with small samples of syrup, of their own manufacture, and accompanied by a declaration of genuineness, in the following form:—

DECLARATION.

I have learned that one of the greatest difficulties found in the legal protection of the genuine maple syrup and sugar industry is due to insufficient knowledge of the limits of variability which may be found in the genuine maple products themselves.

For the purpose of assisting in the acquisition of necessary data, I am sending this sample to the Department of Inland Revenue at Ottawa, and I hereby certify that this maple syrup has been made by myself and is known to me to be genuine, and is entirely the product of the maple tree.

Signed.. .. ..
Post Office Address.. .. ..

As a result of this appeal, I received the samples now reported; and I desire here to express my gratitude to the senders, and my appreciation of their willingness to supply full information as to the modes of working and kindred matters.

Since the object of this investigation is the ascertaining of fullest knowledge regarding the character of maple syrup, I have felt it desirable to avail myself of every source of authentic information on the subject; and I have especially to acknowledge the valuable data presented in Bulletin No. 134 of the Bureau of Chemistry, Washington, D.C.

A detailed study of the results of analysis is subjoined; and I may merely add here that the contention regarding present standards for maple products, that they exact a higher lead acetate number than is afforded by some genuine maple syrups, is substantiated. Of 456 samples examined by the authorized method, 31 samples, most if not all, of undoubted genuineness, fail to reach the legal requirements. When these samples are worked for lead number by the Winton method, 15 samples are still found below legal requirements, the equivalent standard by the Winton method being considered.

Under these conditions it is apparent that our standards must be rewritten, since it goes without saying that there must be no possibility of penalizing a genuine article.

I would therefore respectfully recommend that the maple products standards of March 2, be revised, as follows:—and may add that in this recommendation, I am supported by Dr. W. H. Ellis and Dr. J. T. Donald, the other members of your advisory board.

PROPOSED STANDARDS FOR MAPLE PRODUCTS.

MAPLE SUGAR.

Maple Sugar is the solid product resulting from the evaporation of maple sap, or of maple syrup, and contains not more than ten (10) per cent of water. It yields not less than six-tenths (0·6) of one per cent of ash, reckoned on the dry matter of the sugar, when incinerated in such a way as to assure the earths being present as salts, and not as oxides; and not less than twelve one-hunderdths (0·12) of one per cent of ash insoluble in water, employed as described below. It yields not less than three-tenths (0·3) per cent of malic acid, reckoned on the dry matter, when worked as described below. It yields a *lead number* not less than one seven-tenths (1·7), when worked by the Canadian method, nor less than one and two-tenths (1·2), when worked by the Winton method, as described below.

MAPLE SYRUP.

Maple Syrup is syrup made by the evaporation of maple sap, or by the solution of maple concrete in water; and contains not more than 35 per cent of water. The dry substance of maple syrup shall meet all the above standards for maple sugar.

METHODS OF WORKING.

Water, in maple sugar, shall be determined by heating to 100° C. 5 grammes of the finely powdered sugar, spread upon a watch glass, to constant weight. The loss of weight shall be reckoned as water.

Water in maple syrup shall be determined by drying 5 grammes of the syrup, on asbestos fibre or in admixture with sand, to constant weight, at a temperature not exceeding 100° C. The loss of weight shall be reckoned as water.

Total ash, in both maple sugar and maple syrup, shall be determined by gentle ignition of 5 grammes in platinum, to the point of incipient charring, after which ignition to constant weight shall be completed in a muffle, at as low a temperature as possible. The resultant ash is then treated with ammonium carbonate in solution, dried and gently ignited, when the weight should remain unchanged.

Insoluble ash is determined by treating the total ash with 40 cc. of hot water, and gently boiling for two minutes. The contents of the dish are then thrown upon a small ashless filter, and washed with hot water till the total filtrate amounts to 100 cc.

Malic acid.—Six and seven-tenths (6·7) grammes of the dry sugar, or its equivalent amount in syrup, is weighed into a 200 cc. beaker and water added to make a volume of 20 cc. The solution is made slightly alkaline with ammonia, 1 cc. of a ten per cent solution of calcium chloride is added; then 60 cc. of 95 per cent alcohol. The beaker is covered with a watch glass and heated for one-half hour on a water bath, when the flame is turned off and the beaker left to stand over night. The material in the beaker is then filtred through a good quality filter paper, the precipitate washed with hot 75 per cent alcohol to freedom soluble calcium salt, dried and ignited. From 15 to 20 cc. of tenth normal hydrochloric acid is added to the ignited residue, the lime thoroughly dissolved by careful boiling, and the excess of acid titrated with normal sodium hydroxide, using methyl orange as an indicator. One-tenth of the number of cubic centimeters of acid neutralized express the result, which for the present will be called 'Malic Acid Value.'

Lead Number, Canadian Method.

Five grammes of the dry sugar, or its equivalent in syrup is dissolved in water, to a volume of 20 cc. Two (2) cc's of a solution of subacetate of lead is added, and the solutions thoroughly mixed. After standing for two (2) hours, the precipitate is filtered off, using a Gooch crucible or a sugar tube packed with asbestos, and washed four or five times with hot water, using the suction pump, dried and weighed. The weight of the dry precipitate in grammes is multiplied by 20. The product is the *lead subacetate number.*

Mode of preparation of solution of subacetate of lead, as follows:—

Boil for half an hour 430 grammes of normal lead acetate and 130 grammes of litharge with 1,000 cc. water. Cool the mixture, allow to settle, and dilute the supernatent liquid to 1·26 specific gravity.

Winton method.

Twenty-five grammes (25) of dry sugar, or its equivalent in syrup is transferred to a 100 cc. flask with water. Add 25 cc. of the standard lead acetate solution and shake; fill to the mark, shake and allow to stand at least three hours before filtering. From the clear filtrate, pipette off 10 cc. to a 250 cc. beaker, add 40 cc. of water and 1 cc. of concentrated sulphuric acid; shake and add 100 cc. of 95 per cent alcohol. Let stand over night, filter on a tared Gooch crucible, wash with 95 per cent alcohol, dry in a water oven, and ignite over a Bunsen burner, applying the heat gradually at first.

Cool and weigh. Subtract the increase in weight of lead sulphate from the weight of the blank. Multiply the difference by the factor 27·325. The determination of the blank is made as follows:—

Transfer 25 cc. of the standard lead acetate solution to a 100 cc. flask, add a few drops of acetic acid, and make up the whole to the mark with water. Shake, and use 10 cc. for the determination of lead, as directed in the preceding section.

NOTE.—If the maple syrup samples have undergone fermentation in any degree, the carbonic acid must be boiled off, before adding the lead acetate solution. This with either of the above methods.

2. If crystallization of sugar has taken place in maple syrup samples, this must be redissolved, by gently warming the sample, before proceeding with the analysis.

These standards for maple syrup are based essentially upon work reported, in Bulletin 229; and represent minimum values for critical data found in genuine samples of maple syrup. Commercial samples failing to reach the requirements named will be held to be illegally adulterated. But it does not follow that samples meeting these standards are necessarily genuine Certain values possessed by the data named, in relation to each other, may be shown to be as essential to genuineness as the data themselves considered singly.

From the elementary composition of the ash, and other results of analysis, it may be possible to prove adulteration, even in samples which give lead and malic acid numbers, meeting the requirements of the standards above defined.

In submitting these revised standards for maple products. I am conscious that the lowering of the lead number and the malic acid number, rendered necessary by considerations which have been placed before you in detail, makes it quite possible for fraud to be perpetrated in the maple sugar and maple syrup industry with increasing difficulty of detection. This industry is a very important one, particularly in some sections of Canada; and it affords a source of profitable employment to the farmer at a period of the year when farm work is not otherwise pressing. For this reason, it is very desirable that the small manufacturer should be protected from the unfair competition of mixtures of cane and maple sugars, which although wholesome and desirable food substances, are not legal maple sugar or syrup.

Recognizing the difficulty of affording as perfect protection as could be wished, by inspection under the Adulteration Act, I would respectfully suggest the offer of a reward to any person able to prove the manufacture and sale of maple products which are adulterated. If a substantial penalty for adulteration of maple goods were specifically named, one moiety of it to go to the informer, in case of his making good his charges, this would, I venture to think, prove a powerful deterrent to fraudulent practices which now prevail.

I beg to recommend the publication of this report as Bulletin 228.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

MAPLE SYRUP.

Syrups are fundamentally solutions of one or more sugars in water. Since sugar is the costly component, it is reasonable to require that a commerical syrup should contain a specified amount of sugar. Hence the necessity for fixing a legal minimum percentage of sugar, or a maximum percentage of water, or a minimum density for the syrup, or a minimum weight per gallon.

The syrup of the British Pharmacopœia may be taken as typical; and it is legal syrup by virtue of its being defined by the pharmacopœia. It is made by dissolving 5 lbs. of refined sugar in distilled water, the finished product to weigh 7½ lbs. The specific gravity is 1·330. This syrup contains 66·7 per cent by weight of sugar; and, of course, 33·3 per cent of water.

In the 456 samples of syrup herein reported, the water content ranges from 25 to 50 per cent of the weight of the syrup, and is distributed as follows. The water percentage being stated to the nearest integral number:—

Percentage of Water.	Number of Samples.	Percentage of Total.	
25	1	0·22	
27	1	0·22	
28	3	0·66	
29	2	0·44	
30	47	10·30	88 p.c.
31	97	21·27	
32	106	23·25	
33	68	14·91	
34	41	9·00	
35	36	7·90	
36	18	3·95	
37	21	4·60	
38	5	1·10	
39	6	1·30	
40	2	0·44	
41	1	0·22	
50	1	0·22	
Total..	456		

More than 88 per cent of these samples fall within a 35 per cent limit for water; while more than 96 per cent of them fall within a 37 per cent limit. A thirty-five per cent limit for water corresponds to a weight of 13 lbs. 3 oz. per imperial gallon: a specific gravity of 1·320 at the ordinary temperature or to 35·6° Baumé. I have designated samples containing more than 35 per cent of water, as having water in excess, for the reason that 35 per cent of water is sufficient to keep the sugar in permanent solution, and a higher amount of water than this is inconsistent with the definition of a syrup as furnished by the British pharmacopœia, and moreover conduces to ready fermentation, unless kept sterilized. Of 395 samples of maple syrup reported, in Bulletin 134 of the Bureau of Chemistry, Washington, 1910, none containing as much as 35 per cent water showed crystallization of the sugar; and our experience in the 456 samples of Canadian syrup now reported, is to the same effect.

Such a syrup as is defined by the pharmacopœia, has the characteristic sweetness of sugar and is nearly colourless. As might be expected from its mode of preparation, it has no special flavour, and for the purpose intended by the pharmacopœia, this is an advantage. It is easily intelligible that instead of adding the refined sugar to distilled water, a syrup of proper density may be produced by concentrating a dilute solution of sugar in water. The dilute solution in question may be a natural one, as the juice of the sugar cane or the sap of the maple tree. Inspissation may be effected by evaporation of the water; or by freezing and separating the floating ice. A syrup produced in this way will differ from B. P. syrup chiefly in the fact that any substances other than sugar naturally present in the sap, will remain in the syrup, except so far as processes of manufacture have removed them. When the sap has been boiled, any components volatile at the boiling temperature will be lost. Substances rendered insoluble by concentration, may be removed by filtration or sedimentation; or, if sufficiently light to float on the syrup, they may be skimmed off. Such non-sugar components as are not removed from the syrup, by one or other method indicated, will remain in solution, and may give medicinal or aromatic or other properties to such syrups.

When the sap of the maple tree (hard or soft maple) is the material employed, and the method is one of evaporation by heat, the resultant product is *maple syrup*. This article has a higher market value than the simple syrup of the pharmacopæia; and so far as I can discover, this increased value is due to its special and agreeable flavour. Maple syrup may also be made by dissolving maple sugar in water to a proper consistency.

Like any other manufactured product, maple syrup may be injured in process of manufacture. The sap may be carelessly collected, and many impurities introduced; or the syrup may be burned during the evaporation, producing caramelization, and a burnt taste. Failure to separate floating impurities may leave it turbid and unattractive. In all such cases we have spoiled maple syrup; but *maple syrup* nevertheless. I wish to insist upon this point; because maple syrup is made by thousands of persons who have had no technical training, who use very crude appliances, and to whom the making of maple syrup is merely an incident in the year's work. But they are, nevertheless, honest in their intention to produce a bona fide maple syurp; and it would be palpably wrong to legalize any definition of the article which could stigmatize their output as adulterated. This output may be of low grade, but it is maple syrup.

There is another class of makers of maple syrup who are punctilious in regard to collection and subsequent treatment of the sap. They prevent the introduction of foreign matters into it, avoid caramelization of the sugar, and are careful to separate matters thrown out of solution on concentrating. The final product has very little colour, and the agreeable flavour of the maple is not hidden or disguised by caramel. This product is surely maple syrup; and it would be unwarrantable to legalize any definition of the article which would fail to recognize it as such. The following conclusions appear to be justified by the above considerations:—

1. Colour is not an essential character of maple syurp.
2. Clearness is not an essential character of maple syrup.
3. *A pure maple flavour* is not an essential of maple syurp.

Colour, clearness and flavour are undoubtedly of importance in determining the commercial value of maple syrup; but they are not essential to its specific identity. And further, the use of actual maple sap, *and of nothing else,* as a raw material in the manufacture of maple syurp, is essential. No operation ostensibly having for its object the amelioration of the product, but which introduces into this product anything that did not already exist in the maple sap, is permissible, where the product is sold simply as maple syrup.

The sugar which is present in maple sap is sucrose, and is chemically and physically identical with the sucrose of sugar cane and beet root. In the natural juices of sugar cane and beet root, the sucrose is associated with other substances in solution, as is the case with sucrose in the sap of the maple tree. The difference is that these other substances, if allowed to remain in the juice while this is concentrated by evaporation to the consistency of syrup, cause the product to have a disagreeable flavour, in the cases of cane and beets, while in the case of maple sap, the characteristic flavour is pleasant, and the resultant syrup is in demand on this account. For this reason, more or less complex processes are resorted to, in the manufacture of cane and beet juices with the object of freeing the sugar from all other matters, and the sugar so obtained is usually found on the market in a highly refined state, and is indeed one of the purest food substances known, being often above 99 per cent sucrose. As such it is identical with the sucrose of maple sap; and, so far as healthfulness goes, a solution of this sugar, having proper consistency, may be added to maple syrup, with the production of a desirable table syrup. But such a mixture is not maple syrup; and it should not be sold as such. It is conceivable that, where a specially high-flavoured maple syrup is used, the mixture may possess a sufficiently distinct maple flavour to be indistinguishable by the palate, from actual maple syrup.

If imperfectly refined cane or beet sugar is employed, the characteristic impurities of cane or beet juice, will appear in the mixture, and will, naturally, interfere more or less, with the true maple flavour. Since however, as has been stated above, much maple syurp is carelessly or crudely made, a mixture of the kind indicated may find sale and, indeed, we know that such mixtures do find sale, at times.

From what has been said, the necessity of having some standard for maple syrup, independent of its sugar, its flavour, its colour or its clearness, will be apparent. Even if we knew to what the flavour of maple syrup is due, and could quantitatively determine this constituent, the great variation in the intensity of flavour recognized in genuine samples would compel us to accept a minimum amount of the flavour-giving constituent as exempting the sample from condemnation as adulterated. Such minimum could only be defined by an exhaustive analysis of so large a number of samples of real maple syrup, as should include with certainty all possible varieties of the article. As a matter of fact, the flavour-giving substances in maple syrup are not exactly known. It is probable that certain esters of malic and other acids, have most to do with maple syrup flavour. The acids in question yield calcium salts that are comparatively insoluble in dilute alcohol. Hence these acids can be determined with considerable exactitude.

The so-called *malic acid value* has been determined upon a large number of samples of presumably genuine maple syrup. Bulletin No. 134 of the Bureau of Chemistry, Washington, contains a report of work done upon 86 samples of Canadian maple syrup, obtained in Quebec, in 1909, and believed to be genuine.

The following are the results obtained:—

		Per cent.
Malic acid value from	0·30 to 0·39	1·2
" "	0·50 to 0·59	9·3
" "	0·60 to 0·69	10·4
" "	0·70 to 0·79	33·7
" "	0·80 to 0·99	34·9
" "	1·00 to 1·24	10·4

The same publication reports this determination upon a total of 480 samples obtained in the eastern United States and Canada, and believed to be genuine.

The percentage results are as follows:—

		Per cent.
Malic acid value from	0·00 to 0·29	0·2
" "	0·30 to 0·39	0·4
" "	0·40 to 0·49	2·3
" "	0·50 to 0·59	6·0
" "	0·60 to 0·69	12·3
" "	0·70 to 0·79	18·3
" "	0·80 to 0·99	34·1
" "	1·00 to 1·24	21·2
" "	1·25 to 1·49	4·8
" "	1·50 to 1·75	0·4

The tables accompanying this report give the malic acid values of 452 samples of maple syrup, each sample supplied by the maker, and accompanied by a declaration of its having been made entirely from maple sap. For purpose of comparison with the above, I submit the following synopsis of results, and may add that these have been obtained by methods of analysis, identical with those employed at Washington.

		Per cent.
Malic acid value below	0·30	None
" "	0·30 to 0·39	2·0
" "	0·40 to 0·49	4·0
" "	0·50 to 0·59	10·6
" "	0·60 to 0·69	15·7
" "	0·70 to 0·79	20·8
" "	0·80 to 0·99	37·8
" "	1·00 to 1·16	9·1

A malic acid value of between 0·50 and 1·00 is found for 88 per cent of Canadian samples, analysed at Washington, for 71 per cent of samples obtained throughout Canada and the eastern United States; and for 94 per cent of Canadian samples herein reported, and furnished with a declaration of genuineness. It is safe to infer that samples giving less than 0·5 or more than 1·0 as malic acid values, are exceptional. But it must be borne in mind that individual samples, guaranteed genuine, give as low a malic acid number as 0·30; while 2 per cent of the present collection gave malic acid values below 0·4.

While the data available do not enable me to assert the fact positively, I am convinced that the sap from the soft maple produces a syrup yielding a lower malic acid number than that from the hard maple (rock maple). In many cases the sugar orchards contain both hard and soft maple trees; and I think it generally true that the hard maple predominates in the province of Quebec; and the soft maple in Ontario, particularly in western Ontario.

When the basic acetate of lead is added in excess to a solution of maple syrup (or sugar) malate of lead is thrown out of solution, together with other organic matters of varied character. If a lead solution of definite strength is employed, and the operation carried out under strictly defined conditions, this precipitate is found to be fairly constant in amount. Two recognized methods of making the test are widely used, and are as follows:—

Canadian method.—Five grammes (5) of sugar (or its equivalent in syrup) is dissolved in water, to a volume of 20 cc. Two (2) cc's of a solution of subacetate of lead is added, and the solutions thoroughly mixed. After standing for two (2) hours. the precipitate is filtered off, using a Gooch crucible or a sugar tube packed with asbestos, and washed four or five times with hot water, using the suction pump, dried and weighed. The weight of the dried precipitate in grammes in multiplied by 22·22.[1] The product is the *lead subacetate number.*

Mode of preparation of solution of subacetate of lead, as follows:—

Boil for half an hour 430 grammes of normal lead acetate and 130 grammes of litharge with 1,000 cc. water. Cool the mixture, allow to settle, and dilute the supernatent liquid to 1·26 specific gravity.

Winton method.—Weigh 25 grammes of the sample and transfer to a 100 cc. flask with water.[2] Add 25 cc. of the standard lead acetate solution and shake; fill to the mark, shake, and allow to stand at least three hours before filtering. From the clear filtrate, pipette off 10 cc. to a 250 cc. beaker, add 40 cc. of water and 1 cc. of concentrated sulphuric acid; shake and add 100 cc .of 95 per cent alcohol. Let stand over night, filter on a tared Gooch crucible, wash with 95 per cent alcohol, dry in a water oven, and ignite over a Bunsen burner, applying the heat gradually at first. Cool and weigh. Subtract the increase weight of lead sulphate from the weight of the blank and multiply by the factor 27·325. The determination of the blank is made as follows:—

Transfer 25 cc. of the standard lead acetate solution to a 100 cc. flask, add a few drops of acetic acid, and make up the whole to the mark with water. Shake, and use 10 cc. for the determination of lead, as directed in the preceding section, and multiply by the factor 27·325.

[3]

$$\frac{PbSO_4 \times \cdot 6829 \times 100}{2 \cdot 5} = PbSO_4 \times 27 \cdot 325.$$

While the lead numbers found by the two methods are not identical they are comparable, and yield practically the same information regarding the sample, as will be seen in the sequel. The Canadian method has the advantage of requiring less time

[1] On the assumption that maple sugar contains 10 per cent water.

[2] With either of these methods, if fermentation has taken place, the carbonic acid must be boiled off before adding the lead solution.

[3] The resultant is weight of metallic lead corresponding to 100 grammes of the sample. The proposed Canadian Standard is based on the dry solids of the sample.

and labour, and is therefore beter suited to police work. At best both methods must be regarded as empirical, and exact duplication of results is not to be expected with either.

With every empirical method two sources of error must be recognized and allowed for, viz.: That due to our ignorance of the more or less variable substances estimated, and that due to the personality of the operator. In any attempt to interpret into actual operation a written description of such a method as is in question, it will be found that no two operators will secure absolutely concordant results. In order to ascertain the limits of unavoidable difference in result, the following samples were worked in duplicate, by different persons, the samples being so designated that the analyst could not know what actual sample he had in hand. The columns headed 1 and 2 give check results in the hands of the same analyst; columns headed 3 and 4 give the mean results as found by different analysts, working upon the same sample, without knowledge of the fact. The differences following each pair of columns headed 1 and 2 give the magnitude of the first sort of error above referred to; while the *difference of means,* gives the magnitude of the second source of error. The work was done with every possible care, by skilled analysts.

Lead Number (Canadian Method).

STUDY of Errors involved.

Sample.	First Operator.				Second Operator.				Difference of Means.
	1	2	Diff.	Mean.	1	2	Diff.	Mean.	
A	1·72	1·80	0·08	1·76	1·68	1·67	0·01	1·67	0·09
B	2·42	2·52	0·10	2·47	2·46	2·32	0·14	2·39	0·08
C	2·02	2·12	0·10	2·07	1·95	2·29	0·34	2·12	0·05
D	2·36	2·52	0·16	2·44	2·50	2·52	0·02	2·51	0·07
E	1·70	1·68	0·02	1·69	1·96	1·84	0·12	1·90	0·21
F	1·46	1·40	0·06	1·43	1·20	1·29	0·09	1·24	0·19
G	1·72	1·52	0·20	1·62	1·70	1·73	0·03	1·72	0·10
H	1·94	1·94	0·00	1·94	2·14	2·22	0·08	2·18	0·24
K	1·70	1·96	0·26	1·83	2·14	2·06	0·08	2·10	0·27
L	2·00	2·00	0·00	2·00	1·84	1·82	0·02	1·83	0·17
M	.....	.....	.....	1·83	.....	.....	.....	1·78	0·05
N	.....	.....	.....	2·11	.....	.....	.....	1·92	0·19
O	.....	.....	.....	1·89	.....	.....	.....	1·85	0·04
		Average 0·10				Average 0·09			0·13

NOTE.—The above results are stated on the weight of the syrup; not, as usual, on the weight of dry sugar contained therein.

From this study it is apparent that the results of work must not be interpreted closer than 0·20. That is to say, if we require a legal minimum lead precipitate number of 2·00, then this requirement must be held to be fulfilled if analysis gives 1·80; since an error amounting to the difference between the number found and that required inheres in the method of working.

When the Winton method of determining the basic lead number is employed, the results for duplicate estimations are decidedly closer. The following table gives duplicate results by both methods, and illustrates at once the amount of error inherent in each method, and the relation of the indications obtained by each.

Basic Lead Numbers.

COMPARISON of Canadian and Winton Methods.

Sample.	Canadian.			Winton.			Difference of Means.
	1	2	Mean.	1	2	Mean.	
1	3·65	3·50	3·57	2·35	2·42	2·38	1·19
2	2·89	3·08	2·99	2·34	2·29	2·31	0·68
3	3·41	3·41	3·41	2·29	2·34	2·31	1·10
4	3·35	3·67	3·51	2·36	2·36	2·36	1·15
5	3·29	3·02	3·16	2·29	2·29	2·29	0·87
6	2·95	3·33	3·14	2·23	2·33	2·28	0·86
7	2·89	3·23	3·06	1·99	1·98	1·98	1·08
8	3·06	3·13	3·09	2·04	2·04	2·04	1·05
9	2·67	2·54	2·60	2·31	2·31	2·31	0·29
10	2·88	3·01	2·95	2·29	2·24	2·26	0·69
11	2·17	2·25	2·21	2·13	2·23	2·18	0·03
12	2·70	2·79	2·74	2·38	2·25	2·31	0·43
13	3·55	3·71	3·63	2·10	2·10	2·10	0·53
14	3·21	3·24	3·22	2·17	2·25	2·21	1·01
15	3·15	3·06	3·10	2·14	2·19	2·16	0·94
16	3·11	3·14	3·12	2·32	2·28	2·30	0·82
17	2·85	2·79	2·82	2·17	2·18	2·17	0·65
18	3·59	3·29	3·44	2·08	2·08	2·08	1·36
19	3·17	3·40	3·28	2·32	2·36	2·34	0·94
20	3·19	3·06	3·12	2·31	2·36	2·33	0·79
21	3·19	3·01	3·10	2·25	2·25	2·25	0·85
22	3·06	3·06	3·06	2·23	2·26	2·24	0·82
23	3·67	3·73	3·70	2·25	2·25	2·25	1·45
24	3·46	3·78	3·62	2·15	2·15	2·15	1·47
			3·11			2·23	

Mean difference is 0·16 between duplicates. Mean difference is 0·04 between duplicates. Mean difference between readings is 0·88.

It thus appears that the mean error for the Canadian method is 0·16, while for the Winton method it is only 0·04. Against this must be set the fact that the average lead number for the latter method is only 2·23, as against 3·11; in other words, if the number 2·00 be taken as minimum lead number by the Canadian method, 1·43 would have to be taken as the equivalent minimum by the Winton method; and a recognized probable error of 0·04 affects the first decimal figure of such a standard. The fact is that while both methods possess value as serving to point out real differences in character between samples of maple syrup, neither method is sufficiently exact or is based upon sufficiently definite chemical reactions, to permit of safe interpretation within about one-tenth of the indication actually found.

Bulletin No. 134 of the Bureau of Chemistry, Washington, gives (pp. 75 and 76) the lead numbers for 86 samples of Canadian maple syrup (Quebec), as determined by the Winton method.

Maximum	3·92
Minimum	1·85
Average	2·55

For 481 samples of syrup, representing the maple belt of the United States and Canada, the numbers are as follows:—

Maximum	4·41
Minimum	1·76
Average	2·70

Forty-seven (47) samples of the present collection have been worked by the Winton method, with the following results:—

Maximum	2·38
Minimum	1·05
Average	1·75

It will be noted that these numbers are decidedly lower than the numbers found at Washington for the season 1909. While the data at my disposal are not sufficiently full to enable me to speak decisively, I am inclined to believe that the rapidly extending use of improved apparatus in evaporating the sap, increased care in collecting, storing and handling it, with the introduction of filters, clarifiers, &c., in processing, have much to do with the reduction of the lead number. Through improvements in manufacture, impurities which give dark colour and turbidity to the product, are removed; and it is fully ascertained that a large number of the 456 samples herein reported have been made by producers equipped with modern evaporators and other appliances. The lead numbers given may be regarded as characteristic for maple syrup of a very high grade, from the point of view of cleanliness. Whether or not modern refinements in manufacture tend to reduce the flavour believed to be characteristic of maple syrup, is a matter upon which I cannot express an opinion.

The lead number has been determined by the Canadian methods of working, upon 456 samples of maple syrup, obtained directly from the makers, under declaration of genuineness. The following is a synopsis of results:—

Lead Numbers, Canadian Method.

From	1	to	1·50	in	2	samples.
"	1·50	"	2·00	"	29	"
"	2·00	"	2·50	"	126	"
"	2·50	"	3·00	"	136	"
"	3·00	"	3·50	"	91	"
"	3·50	"	4·00	"	54	"
"	4·00	"	4·50	"	12	"
"	4·50	"	5·00	"	3	"
"	5·00	"	5·50	"	1	"
"	5·50	"	6·00	"	1	"
Above 6·00				"	1	"
Total					456	"

Our standards for maple syrup, legalized under section 26 of the Adulteration Act, and in force since April, 1911, require a lead number of not less than 2·2, determined by this method of working. It has already been shown that a possible error of 0·2 inheres in the method, so that samples giving 2·0 must be held to fulfil the requirements of the standard. It will be seen that 31 samples, or 7 per cent of the entire collection, fall below the required number. Since these samples are furnished with a declaration of having been made entirely from maple sap, it is of importance to ascertain whether there is any danger of judging them to be adulterated under existing standards, when the whole results of analysis are taken into account.

In order to determine this, the following synopsis of results is given:—

No.	Lead Number.		Dry Solids.	Malic Acid.	Ash.		Remarks.
	Canadian.	Winton.			Total.	Insoluble.	
8	1·66	1·16	67·48	0·47	.....	.....	Illegal.
11	1·51	1 08	65·06	0 36	0·71	0·19	"
20	1·61	... ...	66·68	0·59	0·75	0·27	Doubtful.
33	1·78	1·28	65·74	0·64	0·72	0·31	Illegal.
78	1·77	1·27	69 78	0·65	0·85	0·19	"
108	1·89	1·26	68·87	0·88	0·97	0·40	Doubtful.
154	1·94	1·49	68·10	0·59	0·82	0·24	Pass.
169	1 77	1 27	70·02	0·80	0·78	0·23	Illegal.
176	1·47	1·05	68·88	0·57	0·78	0·21	"
179	1·98	1·48	67·75	0·78	.....	.....	Pass.
207	1 57	1·12	63·44	0·74	0·85	0·25	Illegal.
209	1·93	1·46	70·47	0·49	0·97	0·28	Pass.
225	1·73	1·24	64·80	0·60	0·84	0·24	Illegal.
237	1·82	1·31	67·52	0·58	0·78	0·27	"
241	1·63	1·17	64·79	0·55	0·75	0·12	"
242	1·37	1·09	66·83	.....	0·99	0·60	"
263	1·90	.....	68·48	0·51	0·74	0·22	Doubtful.
268	1·93	1·57	67·52	0·66	0·69	0·20	Pass.
278	1·88	.....	68·41	0·71	0·72	0·29	Doubtful.
281	1·66	.....	68·42	0·54	0·79	0·24	"
284	1·94	.....	69·10	0·68	0·76	0·28	Pass.
299	1·88	.....	67·97	0·84	0·74	0·26	Doubtful.
330	1·98	.....	68·88	0·71	0·75	0·24	Pass.
338	1·90	1·32	69·10	0·76	0·75	0·27	Doubtful.
343	1·86	.....	67·71	0·72	0·83	0·25	"
383	1·88	1·27	70·46	0·61	0·75	0·24	"
385	1·54	1·25	69·10	0·72	0·84	0·24	Illegal.
391	1·50	1·17	68·88	0 68	0·70	0·23	"
392	1·66	1·07	64·93	0·85	0·72	0·30	"
395	1·80	1·55	66·38	0·83	0·75	0·33	Pass.
426	1·53	1·25	67·51	0·72	0·70	0·25	Illegal.

If judgment were based upon the lead number as obtained by the Canadian method of working, and by this datum only, the whole of the above 31 samples would have to be declared illegal. Such a mode of judging would evidently be unfair, as all the evidence must be taken into account.

Winton lead number.—This has been shown to bear a ratio of $\frac{223}{311} = 0{\cdot}71$ to the Canadian lead number; and, if we allow one-tenth for experimental error, the limit Winton number is 1·41.

Dry solids must reach 65 per cent.

Malic acid, by reference to the legal definition for maple sugar, must reach 0·4 per cent.

Total ash must be 0·5 per cent.

Insoluble ash, although not legally recognized as a datum, has been shown to reach 0·2 per cent in normal samples of maple syrup.

When every allowance is made for imperfection in data available, it is found that 15 samples must be declared illegal, under our present standards. It is, nevertheless, impossible for me to believe that these samples are actually adulterated. I have had correspondence with most of the makers of these samples, and am perfectly convinced of their integrity, and indeed of their earnest wish to assist the department in protecting the maple industry. One of them has recently sent me four samples of syrup (tabulated as A, B, C, D), from Wisbeach, Lambton Co., and three of these give results

for 'lead number' which would classify them as illegal under present standards. Yet these samples are fully vouched for as genuine maple products, and from the sap of the hard maple only. They have evidently been made with great care, and it is probable that it is to the care taken in their manufacture that the exceptionally low lead numbers are to be ascribed.

It seems, therefore, to be quite well established that while the great majority of maple syrups yield lead numbers much exceeding 2·2, maple syrup of genuine character may occur yielding lead numbers, which for the Canadian method of working do not exceed 1·50, and for the Winton method, 1·10.

Perhaps the most satisfactory determinations which the analyst can make upon maple syrup, have regard to the mineral constituents. When the syrup is evaporated to dryness and burned, these remain as the *ash,* and are found to be chiefly carbonates of lime and potash, with varying amounts of phosphates, sulphates, silica, &c.

The determination of total ash must be made upon the clear syrup, after sufficiently prolonged standing to ensure the settling out of all suspended matters. If this condition be fulfilled, and care be taken to prevent reduction of the carbonate of lime to oxide, or to reconvert to carbonate before weighing, very satisfactory duplicate estimations can be obtained.

The ashing of maple syrup, or indeed of any substance containing large amounts of carbonaceous matter, must be performed with great care, or serious loss will result. The dried material is slowly charred, over a small flame, and the combustion completed in a muffle, and at as low temperature as possible.

Bulletin No. 134 of the Bureau of Chemistry, Washington, gives the total ash determinations (pp. 75 and 76) of 86 samples of Canadian maple syrup, obtained in the province of Quebec, and under conditions which make it probable that they must be regarded as genuine, in the sense of their being entirely the product of maple sap. Calculated to a dry basis these gave:—

Maximum total ash per cent	1·35
Minimum total ash per cent	0·77
Average	0·95

The figures for total ash obtained from 481 samples of maple syrup, representing all the maple-producing states of the Union, as well as Canada, are as follows:—

Maximum total ash per cent	1·68
Minimum total ash per cent	0·68
Average	1·02

The ash has been determined upon 115 samples of the 456 constituting this report, with the following results:—

Maximum total ash per cent	1·38
Minimum total ash per cent	0·69
Average	0·89

Not much importance can be attached to the maxima, nor even to the averages quoted above. The really important question for us is: What is the lowest percent-

age of ash that a genuine maple syrup can yield? So far as this work goes, and on the assumption that all the samples examined are genuine, we must expect as low as 0·69 per cent of ash (reckoned on the dry basis), in occasional samples of genuine maple syrup. That so low an ash percentage as this is quite exceptional appears from the following. Of 115 samples the—

Total ash per cent is below	0·70 in	1 sample.
" "	0·72 "	5 samples.
" "	0·74 "	9 "
" "	0·76 "	19 "
" "	0·78 "	22 "
" "	0·80 "	34 "

Insoluble ash.—This is essentially carbonate of lime, with traces of magnesia, iron, phosphates and silica. It has been generally regarded as an important datum in judging the genuineness of maple syrup. Work done in Washington (Bulletin 134, Bureau of Chemistry) gives, for 481 samples, as follows:—

Maximum insoluble ash per cent	1·01
Minimum insoluble ash per cent	0·23
Average	0·37

Of the 115 guaranteed samples now reported, the figures for insoluble ash are as follows:—

Maximum insoluble ash per cent	0·75
Minimum insoluble as per cent	0·12
Average	0·33

In this case, as with total ash, importance attaches mainly to the *minimum* number. That 0·12 per cent of insoluble ash is exceptionally low, appears from the following considerations.

Of 115 samples, very carefully ashed, we find:—

0·12 per cent insoluble ash in	1	sample.
0·14 " "	1	"
0·19 " "	3	samples.
0·20 " "	2	"
0·21 " "	4	"
0·22 " "	2	"
Below 0·23 " " we find	13	"
" 0·20 " " "	5	"
" 0·19 " " "	2	"

or 1·7 per cent of the number examined.

It would appear that in this datum, as in the case of basic lead numbers and malic acid numbers, improved modern methods of manufacture tend to reduce the number in question. It is further probable that the 0·20 represents the minimum insoluble ash of carefully made syrups, from normal sap. The case in which a lower number than 0·20 is found must be regarded as exceptional, although not necessarily untrue to name.

In determinations of ash it is important that any sugar crystallized out be redissolved before sampling; as it is found that mineral matters, and particularly lime and magnesia salts are carried down with the sugar crystals.

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
							Calculated on dry Substance.			Ash.			
				Moisture.	Solids.	Lead Subacetate ppt.	Lead Sub-acetate ppt.	Malic Acid, value.	Lead number, Winton Method.	Total.	Water Soluble.	Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
Mar. 23	Maple Syrup.....	1	S. Sherwood, Ostrander, Ont..	31·32	68·78	1·76	2·55	0·75	.....	.....	.....	.....	
" 30	"	2	—. Stewart, Farquhar, Ont...	33·24	66·76	1·48	2·22	0·61	.....	.....	.....	....	
" 30	"	3	W. J. Vance, Farquhar, Ont..	32·14	67·86	1·18	2·23	0·67	.....	0·78	0·49	0·29	
" 30	"	4	A. Campbell, Farquhar, Ont..	33·78	66·26	1·44	2·17	0·58	.....	...	.....	.....	
" 30	"	5	Thos. Hunkin, Farquhar, Ont.	35·44	64·66	1·53	2·34	0·67	.....	....	.....	.....	
" 30	"	6	J. Stewart, Farquhar, Ont...	33·68	66·32	1·43	2·15	0·54	.....	0·79	0·42	0·37	
" 30	"	7	Chas. Cann, Thames Road, Ont.	31·60	68·40	1·90	2·77	0·52	.....	.....	.....	.....	
" 30	"	8	John Cann, Thames Road, Ont.	32·52	67·46	1·12	1·66	0·47	1·16	.....	.....	.....	Clarified with cream and skimmed. Illegal under present standards.
" 30	"	9	Albert Hunkin, Thames Road, Ont.	32·14	67·86	1·62	2·38	0·45	.....	0·85	0·49	0·36	
" 30	"	10	E. Stone, Thames Road, Ont..	32·48	67·52	1·78	2·63	0·36	.....	.....	....	....	Malic acid low.
" 21	"	11	Wm. H. McAllister, Dutton, Ont.	34·94	65·06	0·99	1·51	0·36	1·08	0·71	0·52	0·19	Malic acid low. Soft maple sap. Illegal under present standards.
" 30	"	12	W. E. Clark, Dutton, Ont...	35·88	64·12	2·47	3·85	0·62	....	....	.....	....	Excess water.
" 30	"	13	John T. Graham, Dutton, Ont.	35·76	64·24	1·07	3·22	0·56	.....	....	.....	.....	"
April 1	"	14	W. R. Pollard, Iona, Ont..	37·14	62·86	2·44	3·87	0·98	.....	....	.....	.....	"
Mar. 29	"	15	Alex. Lindsay, Holbrook, Ont.	32·68	67·32	1·48	2·19	0·32	.....	0·78	0·45	0·33	Malic acid low.

" 29	"	16	James Rettie, Norwich, Ont.	30·86	69·14	1·94	2·80	0·84	...	.....	....	.....		
April 5	"	17	George Griffin, Burgessville, Ont.	32·70	67·30	1·84	2·73	0·58	.....	.....	.....	.....		
Mar. 22	"	18	Fred Webb, Burgessville, Ont.	35·92	64·08	1·54	2·40	0·74	.....	.....	.....	.....	Excess water.	
April 4	"	19	W. H. Dennis, Burgessville, Ont.	31·48	68·52	1·69	2·46	0·83	.....	.....	.....	.....		
" 6	"	20	H. A. Griswold, Burgessville, Ont.	33·32	66·78	1·08	1·61	0·59	.....	0·75	0·48	0·27	Very carefully made.	
" 8	"	21	James Dennis, Burgessville, Ont.	33·92	66·08	1·34	2·08	0·99	.....	.....	.....	.....		
Mar. 29	"	22	Cecil M. Dennis, Burgessville, Ont.	33·40	66·60	1·43	2·14	0·98	.....	.....	.....	.....		
April 8	"	23	Harry Morgan, Burgessville, Ont.	32·92	67·08	1·62	2·41	0·96	.....	.....	.....	.....		
Mar. 27	"	24	W. C. Topham, Burgessville, Ont.	35·10	64·90	1·33	2·04	1·16	.....	.....	.....	.....		
" 23	"	25	J. S. Stevens, Burgessville, Ont.	32·30	67·70	1·38	2·03	0·84	.....	0·89	0·61	0·28		
" 30	"	26	J. B. McKillop, Wallacetown, Ont.	31·60	68·40	1·94	2·84	0·69	.....	1·00	0·63	0·37		
" 25	"	27	Alex. Watson, Wallacetown, Ont.	31·46	68·54	2·13	3·10	0·92	.....	.....	....	.....		
" 31	"	28	A. D. S. Macallum, Wallacetown, Ont.	35·38	64·62	1·83	2·83	0·61	.....	....	.....	.....		
" 31	"	29	J. M. Graham, Wallacetown, Ont.	32·84	67·16	1·69	2·51	0·78	.....	.....	.....	.....		
" 25	"	30	A. J. Lunn, Wallacetown, Ont.	39·04	60·96	2·00	3·27	0·82	.....	.....	....	.....	Excess water.	
April 11	"	31	Jno. H. H. Sully, Metcalfe, Ont.	39·96	60·06	2·51	4·17	0·79	....	.....	.....	.....	"	
" 18	"	32	Geo. Clark, Metcalfe, Ont.	33·24	66·76	1·74	2·60	0·70	.....	0·90	0·54	0·36		
" 22	"	33	F. T. Latimer, Metcalfe, Ont.	34·26	65·74	1·17	1·78	0·64	1·28	0·72	0·41	0·31	Carefully skimmed, no other treatment. Illegal under present standards.	
" 20	"	34	Clinton Jackson, Metcalfe, Ont.	33·26	67·74	2·18	3·31	0·74	.....	.....	.....	.....		
" 15	"	35	Alex. Latimer, Metcalfe, Ont.	30·94	69·06	1·94	2·80	0·57	.....	1·07	0·57	0·50		
" 18	"	36	A. Mooris, Metcalfe, Ont.	30·98	69·02	1·70	2·45	0·70	.....	.....	.....	.....		
" 15	"	37	D. L. Wilson, Metcalfe, Ont.	37·32	62·68	2·49	3·97	1·03	.....	.....	.....	.....	Excess water.	
" 15	"	38	Wm. Boyd, Metcalfe, Ont.	35·88	64·12	1·91	2·98	0·79	.....	.....	.....	.....	"	
" 20	"	39	Jno. Boyd, Metcalfe, Ont.	33·18	66·82	2·53	3·28	1·06	.....	1·26	0·66	0·60		
" 15	"	40	S. Miller, Metcalfe, Ont.	33·44	66·56	1·75	2·63	0·84	.....	.....	.....	.....		
" 15	"	41	S. J. Woods, Metcalfe, Ont.	33·18	66·84	1·60	2·34	0·44	.....	.....	.....	.....		

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance.		Lead number, Winton Method.	Ash.			
							Lead Subacetate ppt.	Malic Acid value.		Total.	Water Soluble.	Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 15	Maple Syrup.....	42	Alex. McGirr, Metcalfe, Ont..	32·66	67·34	1·39	2·06	0·89	.....	0·87	0·61	0·26	
" 15	"	43	David McKnight, Metcalfe, Ont.	36·32	63·68	1·70	2·66	1·03	.....	.....	.....	.....	Excess water.
" 27	"	44	Reuben Bennet, Canterbury, P.Q.	35·40	64·60	.....	3·28	0·85	.....	.....	.....	.....	
" 26	"	45	Allen Snelling, Canterbury, P.Q.	37·40	62·60	.....	3·83	1·15	.....	.....	.....	.....	Excess water.
" 26	"	46	W. Mayhew, Canterbury, P.Q.	38·10	61·90	.....	5·13	0·90	.....	.....	.....	.....	"
" 28	"	47	G. Cote, Martinville, P.Q....	33·08	66·92	.....	2·38	0·55	.....	.....	.....		
" 22	"	48	E. Choquette, Abbotsford, P.Q.	37·22	62·78	.....	3·27	0·79	.....	.....	.....	.....	Excess water.
May 1	"	49	J. E. Richardson, Stanstead, P.Q.	33·92	66·08	.....	4·24	0·56	.....	.....	.....	.....	
April 22	"	50	Walter Hall, Stoke, P.Q.....	33·48	66·52	.....	2·40	0·61	.....	0·85	0·54	0·31	
" 15	"	51	P. A. Chicoine, St. Dominique de Bagot.	33·80	66·20	.....	2·91	0·53	.....	.....	.....	.....	
" 15	"	52	C. Bernier, St. Dominique de Bagot.	35·52	64·48	.....	3·41	0·60	.....	.....	.....	.....	Excess water
Mar. 18	"	53	H. Barre, Rougemont, P.Q...	35·20	64·80	.....	3·64	0·50	.....	.....	.....	.....	
May 2	"	54	W. A. Carpenter, Stanstead, P.Q.	30·94	69·06	.....	2·95	0·40	.....	.....	.....	.....	
April 8	"	55	H. Bernard, St. Dominique de Bagot.	33·30	67·70	.....	3·78	0·79	.....	.....	.....	.....	

28	"	.....	56	L. Michon, Salvail La presentation, P.Q.	32·60	67·40	.....	3·20	0·74	....	....	.....	.....	
" 13	"	.....	57	C. Fisk, Abbotsford, P.Q.....	34·66	65·34	.....	3·52	0·57	.....	.....	.....	....	
.....	"	.....	58	Henri Dubuc, North Hatley, P.Q.	31·30	68·70	.....	3·67	0·85	.....	.....	.....	.....	
April 29	"	.....	59	P. Rodrique, Compton, P.Q..	32·30	67·70	.....	3·29	0·84	....	.....	.....	.....	
" 13	"	.....	60	W. B. Honey, Abbotsford, P.Q.	30·46	69·54	.....	3·91	0·84	....	.....	....	....	
" 14	"	.....	61	E. E. Buzzell, Abbotsford, P.Q.	34·90	65·10	.....	3·44	0·84	..	0·95	0·57	0·38	
" 22	"	.....	62	Alph. Jilbert, Compton, P.Q..	26·52	73·48	.....	2·80	0·99	.	...	..	.....	
" 29	"	.....	63	S. Beauregard, Waterville, P.Q.	31·72	68·28	.....	2·66	0·75	....	0·95	0·48	0·47	
May 9	"	.....	64	N. H. Moffatt, West Ely.....	33·31	66·69	.....	3·43	0·78	.....	.....	.....	.....	
.....	"	.....	65	C. Potvin, Lawrenceville, P.Q.	34·99	65·01	.....	3·68	0·72	....	.....	.....	.....	
April 18	"	.....	66	A. J. Brown, Lawrenceville, P.Q.	34·06	65·94	.....	3·00	0·89	.....	.....	.....	.....	
" 25	"	.....	67	A. Blanchard, Lawrenceville, P.Q.	31·33	68·67	.....	3·05	0·80	.....	.....	....	.....	
.....	"	.....	68	A. Westover, Sutton Junction, P.Q.	30·43	69·54	.....	3·68	0·84	.....	.....	.....	.....	
.....	"	.....	69	" " ..	34·99	65·01	.....	3·00	0·63	.....	.....	.....	.....	
.....	"	.....	70	Sample No. 2, natural.....	33·17	66·83	.....	2·69	0·69	.....	.....	.....	.....	
.....	"	.....	71	" No. 2, refined.....	32·71	67·29	.....	2·88	0·69	.....	.....	.....	.....	
.....	"	.....	72	" No. 3, natural.....	33·62	66·38	.....	4·09	0·79	.....	0·99	0·54	0·45	
.....	"	.....	73	" No. 3, refined.....	33·17	66·83	.....	3·71	0·79	.....	.....	.....	.....	
April 25	"	.....	74	Victor Roberge, Lawrenceville, P.Q.	32·48	67·52	1·60	2·37	0·71	.....	.....	.....	.....	
" 25	"	.....	75	Ovide Roberge, Lawrenceville, P.Q.	30·45	69·55	1·67	2·40	0·69	.....	.....	.....	.....	
" 25	"	.....	76	Jos. Bourassa, Lawrenceville, P.Q.	31·33	68·67	1·62	2·36	0·57	.....	.....	.....	.....	
" 11	"	.....	77	Achille Lagrandeur, Lawrenceville, P.Q.	32·99	67·01	2·00	2·98	0·66	.....	.....	.....	.....	
" 25	"	.....	78	Louis J. Gagnon, Lawrenceville, P.Q.	30·22	69·78	1·24	1·77	0·65	1·27	0·85	0·66	0·19	Made with care. Illegal under present standards.
" 19	"	.....	79	P. Leduc, Mont St. Hilaire, P.Q.	30·21	69·79	2·28	3·27	0·87	.....	.....	..	.....	
" 20	"	.....	80	Euclide Tetrault, Le Debouli de St. Hilaire, P.Q.	31·36	68·64	2·0*	3·02	0·81	.....	.....	.....	.....	

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance.		Lead number, Winton Method.	Ash.			
							Lead Subacetate ppt.	Malic Acid, value.		Total.	Water Soluble.	Insoluble.	
1911.				p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
.....	Maple Syrup.....	81	Isidore Dragon, St. Ours, P.Q.	30·71	69·29	2·45	3·54	0·75	.....	.....	.....	.....	
April 18	"	82	Treffle Auclair, Rochelle, P.Q.	31·83	68·15	2·27	3·33	0·80	.....	.....	.....	.....	
May 10	"	83	Jos. Morin, Valcourt, P.Q....	33 17	66·83	2·34	3·50	0·75	.....	.....	.....	.....	
April 13	"	84	Chas. E. Slack, Abbotsford, P.Q.	34·96	65·04	2·01	3·09	0·87	.....	.....	.....	.....	
" 20	"	85	Alfred Catry, St. Hilaire, Village, P.Q.	32·75	67·25	2·32	3·37	0·86	.....	.....	.....	....	
" 20	"	86	Isa. Gauthier, St. Hilaire Village, P.Q.	29·98	70·02	1·72	2·46	0·69	.....	.....	.....	.....	
" 20	"	87	C. Charbonneau, St. Hilaire, P.Q.	30·21	69·79	2·28	3·27	0·84	.....	.....	.....	.....	
.....	"	88	J. Genest, St. Hilaire, P.Q.	32·75	67·25	1·90	2·83	0·75	.....	.....	...	.....	
" 19	"	89	Mad. A. Auclaire, St. Hilaire Stn., P.Q.	31·33	68·67	1·42	2·07	0·52	.....	0·84	0·61	0·23	
" 4	"	90	Z. Anthier, Le Debouli, P.Q..	29·76	70·24	1·78	2·53	0·75	.....	.....	.....	.....	
" 25	"	91	Jos. Reid, Lawrenceville, P.Q.	30·22	69·78	1·48	2·12	0·51	....	.....	.....	....	
.....	"	92	A. Fontaine, Lawrenceville, P.Q.	31·85	68·15	1·60	2·35	0·68	.....	.....	.....	.....	
April 25	"	93	Jos. Roberge, Lawrenceville, P.Q.	33·62	66·38	2·11	3·18	0·61	.....	.....	.....	.....	
" 4	"	94	N. Guffin, St. Hilaire Village, P.Q.	31·85	68·15	2·00	2·93	0·89	.....	.....	.....	.....	

19	"	.....	95	E. Auclair, St. Hilaire Stn., P.Q.	31·36	68·64	1·61	2·35	0·81	.....	.....	.....	.....	
" 19	"	.....	96	P. Germain, Mont St. Hilaire, P.Q.	29·98	70·02	1·74	2·48	0·84	.....	.....	.....	.....	
" 19	"	.....	97	Alph. Rainlette, Mont St. Hilaire, P.Q.	31·85	68·15	1·70	2·49	0·52	.....	.....	.....	.....	
.....	"	.....	98	E. Pion, Mont St. Hilaire, P.Q.	29·98	70·02	2·05	3·00	0·85	.....	.....	.....	.....	
.....	"	.....	99	Pierre Denis, Mont St. Hilaire, P.Q.	.....	.....	.....	.....	.....	.....	.....	.....	.....	Sample lost.
" 22	"	.....	100	F.J. Beckett, Orford, P.O., N.S	32·48	67·52	2·49	3·69	0·62	.....	.....	.....	.....	
" 24	"	.....	101	B.F. Coats, Pr. S. Boy, Gould Station.	33·60	66·40	1·97	2·97	0·68	.....	.....	.....	.....	
.....	"	.....	102	Neva Asker, Canterbury.....	31·85	68·15	1·30	2·11	0·66	.....	0·84	0·49	0·35	From frozen sap.
.....	"	.....	103	Jean Rodrique, Compton.....	32·48	67·52	1·49	2·21	0·89	.....	.....	.....	.....	
April 18	"	.....	104	Cyprien Larivée, St. Hilaire Stn.	35·43	64·57	2·27	3·52	0·46	.....	.....	.....	.....	
" 18	"	.....	105	Armaud Renaud, St. Hilaire Stn.	28·84	71·16	1·75	2·46	0·57	.....	.....	.....	.....	
" 22	"	.....	106	W. J. Draper & Sons, Compton, P.Q.	30·50	69·50	1·49	2·14	0·77	.....	.....	.....	.....	
" 22	"	.....	107	Pierre Simoneau, Compton, P.Q.	30·67	69·33	1·88	2·71	0·43	.....	.....	.....	.....	
May 1	"	.....	108	W. L. Wood, South Barnston, P.Q.	31·13	68·87	1·28	1·89	0 88	1·26	0·97	0·57	0·40	Second growth maples.
April 22	"	.....	109	P. W. Baldwin, Stanstead, P.Q.	31·85	68·15	1·48	2·17	0·44	.....	.....	.....	.....	
" 21	"	.....	110	Jno. F. Groom, Canterbury, P.Q.	32·25	67·75	1·71	2·52	0·56	.....	.....	.....	.....	
" 20	"	.....	111	J. Laurier, St. Cyrille, D. W.	33·17	66·83	2·35	3·52	0·88	.....	.....	.....	.....	
" 24	"	.....	112	D. Hebert, Drummondville, P.Q.	32·99	67·01	1·86	2·78	0·78	.....	.....	.....	.....	
" 14	"	.....	113	Robt. Whitney, Abbotsford, P.Q.	31·59	68·41	1·65	2·41	0·67	.....	.....	.....	.....	
" 17	"	.....	114	C. Chalifoux, Inglis Corners, P.Q.	31·59	68·41	1·56	2·28	0 67	.....	.....	.....	.....	
" 17	"	.....	115	Asa Shepard, Frelighsburg, P.Q.	31·13	68·87	1·60	2·32	0·74	.....	.....	.....	.....	
" 17	"	.....	116	E. S. Spencer, Hillside, P.Q..	32 94	67·06	1·51	2·25	0·64	.....	.....	.....	.....	
" 15	"	.....	117	Nelson Domingue, Niles Corners, P.Q.	30·45	69·55	3·07	4·41	1·05	.....	.....	.....	.....	
" 20	"	.....	118	H. Brown, Hillside, P.Q.....	35·42	64·58	1·53	2·37	0·67	.....	.....	.....	.....	
" 21	"	.....	119	O. C. Reynolds, St. Amands Centre, P.Q.	30·45	69·55	1·89	2·72	0·78	.....	.....	.....	.....	

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance.		Lead number, Winton Method.	Ash.			
							Lead Subacetate ppt.	Malic Acid, value.		Total.	Water Soluble.	Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 12	Maple Syrup.....	120	Cezarie Choquette, Beloeil Village, P.Q.	32·75	67·25	1·98	2·94	0·77	.....	.....	.....	.....	
" 22	"	121	Odilon Bureau, Compton, P.Q.	30·90	69·10	1·58	2·29	0·76	.....	.....	.....	.....	
" 11	"	122	Alphonse Burelle, Beloeil Village, P.Q.	31·12	68·28	1·89	2·74	0·88	.....	.....	.....	.....	
" 20	"	123	Harley R. Goodhue, Abbots Corners, P.Q.	30·00	70·00	2·32	3·31	0·74	.....	.....	.....	.....	
" 21	"	124	Chas. Westover, Abbots Corners, P.Q.	32·72	67·28	1·79	2·66	0·71	.....	.....	.....	.....	
" 25	"	125	Geo. Mitchell, Drummondville, P.Q.	31·12	68·88	2·74	3·98	0·79	.....	.....	.....	.....	
" 25	"	126	B. Mitchell, Drummondville, P.Q.	31·35	68·65	2·45	3·57	0·73	.....	.....	.....	.....	
" 15	"	127	Ernest Demers, St. Vict. d'Arthabaska.	33·60	66·40	1·65	2·48	0·82	.....	.....	.....	.....	
.....	"	128	Jos. Brisson, St. Helene de Chesler, P.Q.	30·90	69·10	1·79	2·59	0·62	.....	.....	.....	.....	
April 12	"	129	Jno. Poirier, St. Valier de Bulde., P.Q.	30·90	69·10	1·44	2·08	0·45	.....	.....	.....	.....	
" 15	"	130	Onesime Boislard, St. Nobert d'Arthabaska, P.Q.	30·67	69·33	1·84	2·65	0·84	.....	.....	.....	.....	
.....	"	131	Phillipe Mathieu, St. Ours, P.Q.	32·94	67·06	1·84	2·74	0·90	.....	.....	.....	.....	
.....	"	132	Eustache Barette, Beloeil, P.Q.	32·25	67·75	2·66	3·93	0·85	.....	.....	.....	.....	
.....	"	133	Albert Lousiguart, St. Chris. d'Arthabaska, P.Q.	30·21	69·79	1·84	2·64	0·97	.....	0·97	0·70	0·27	
April 20	"	134	Alexis Ares, Waterloo, P.Q.	30·21	69·79	2·49	3·57	0·99	.....	.....	.....	.....	

13	"	.....	135	Geo. Roach, Abbotsford, P.Q.	34·99	65·01	2·31	3·55	0·95	.....	.....	.....	.....	
24	"	.....	136	W. H. Talbot, Warden, P.Q.	30·50	69·50	1·79	2·58	0·94	.....	.....	.....	.....	
" 20	"	.....	137	G. A. Talbot, Warden, P.Q.	29·54	70·46	2·00	2·84	0·88	.....	.....	.....	.....	
.....	"	.....	138	Fred. Whitehead, South Stukely, P.Q.	37·29	62·71	2·29	3·65	0·78	.....	.....	.....	.....	Excess water.
.....	"	.....	139	G. Williams, Fulford, P.Q.	30·90	69·10	1·80	2·60	0·84	.....	.....	.....	.....	
April 18	"	.....	140	Jos. Rainville, St. Anne, P.Q.	30·90	69·10	2·08	3·01	0·85	.....	.....	.....	.....	
" 21	"	.....	141	Ovida Ares, Waterloo, P.Q.	31·58	68·42	1·83	2·67	0·62	.....	.....	.....	.....	
" 22	"	.....	142	Byron Smith, South Roxton, P.Q.	33·39	66·61	1·65	2·48	0·70	.....	.....	.....	.....	
" 25	"	.....	143	Ludger Blanchard, Stukely, P.Q.	33·39	66·61	1·41	2·12	1·03	.....	.....	.....	.....	
May 3	"	.....	144	Jno. P. Dunn, Warden, P.Q.	32·49	67·51	2·19	3·24	0·84	.....	.....	.....	.....	
April 19	"	.....	145	N. Campbell, Waterloo, P.Q.	32·72	67·28	1·55	2·30	0·66	.....	.....	.....	.....	
" 25	"	.....	146	Wilfrid Marrois, St. Joachim Shefford, P.Q.	32·50	67·50	1·46	2·16	0·82	.....	.....	.....	.....	
" 20	"	.....	147	V. S. Mairs, Warden, P.Q.	35·88	64·12	2·13	3·32	1·03	.....	.....	.....	.....	Excess water.
" 15	"	.....	148	A. N. Booth, Waterloo, P.Q.	32·50	67·50	1·90	2·81	0·97	.....	.....	.....	.....	
" 27	"	.....	149	Jas. E. Lewis, Warden, P.Q.	32·48	67·52	2·50	3·70	0·97	.....	.....	.....	.....	
.....	"	.....	150	E. J. Standish, Warden, P.Q.	33·62	66·38	1·64	2·47	0·84	.....	.....	.....	.....	
April 20	"	.....	151	Jos. Marquis, West Shefford, P.Q.	33·16	66·84	2·17	3·25	0·94	.....	.....	.....	.....	
" 28	"	.....	152	D. Ashton, Warden, P.Q.	31·12	68·88	1·64	2·38	0·78	.....	.....	.....	.....	
Mar. 29	"	.....	153	Cohoe Bros., New Durham, Ont.	33·39	66·61	1·41	2·12	0·78	.....	.....	.....	.....	
" 21	"	.....	154	Burt Kennedy, Ilderton, Ont.	31·90	69·10	1·26	1·94	0·59	1·49	0·82	0·58	0·24	Made with care.
.....	"	.....	155	Michael Deneen, Strabane, P.O., Ont.	34·52	65·48	2·47	3·77	0·93	.....	.....	.....	.....	
April 3	"	.....	156	David De Geir, Hannon, Ont.	32·99	67·01	2·76	4·12	0·73	.....	.....	.....	.....	
" 6	"	.....	157	Jos. O'Brien, Nilestown, Ont.	34·98	65·02	1·86	2·86	0·94	.....	.....	.....	.....	
" 6	"	.....	158	Henry Hart, Nileston, Ont.	31·36	68·64	1·41	2·06	0·65	.....	0·82	0·48	0·34	
Mar. 25	"	.....	159	R. M. Ecker, Binbrook, Ont.	35·00	65·00	1·87	2·88	0·70	.....	.....	.....	.....	

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance. Lead Sub-acetate ppt.	Calculated on dry Substance. Malic Acid, value.	Lead number. Winton Method.	Ash. Total.	Ash. Water Soluble.	Ash. Insoluble.	
1911.				p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
.....	Maple Syrup.....	160	Judson Barlow, Binbrook, Ont.	33·39	66·61	2·29	3·44	0·73	.....	.....	.....	.....	
.....	"	161	Jno. Sanderson, Strabane, Ont	32·25	67·75	1·68	2·48	0·79	.....	.....	.....	.....	
Mar. 30	"	162	D. J. McKillop, Wallacetown, Ont.	34·96	65·04	2·39	3·67	0·79	.....	.....	.....	.....	
.....	"	163	L. L. Jenner, prop., E.T. M. S. and Syrup Exchange, Sutton, P.Q.	30·90	69·10	1·57	2·27	0·56	.....	.....	.....	.....	
.....	"	164	Jos. Bouchard.....	34·07	65·93	2·25	3·41	0·89	.....	.....	.....	.....	
April 19	"	165	I. W. Whitcomb, East Hatley, P.Q.	33·76	66·34	1·99	3·00	0·98	.....	.....	.....	.....	
.....	"	166	C. B. Welch, Franklin Centre, P.Q.	34·99	65·01	1·73	2·66	0·99	.....	.....	.....	.....	
April 14	"	167	F. E. Richardson, Ayers Cliff, P.Q.	32·48	67·52	2·04	3·02	0·75	.....	.....	.....	.....	
" 21	"	168	E. E. Temple, Brown Hill, P.Q.	34·96	65·04	1·88	2·89	0·92	.....	.....	.....	.....	
" 15	"	169	Claude E. Honey, Way's Mills, P.Q.	29·98	70·02	1·24	1·77	0·80	1·27	0·78	0·55	0·23	Made with care. Illegal under present standards.
" 15	"	170	Herbert Webster, Hatley, P.Q.	33·39	66·61	2·08	3·12	0·61	.....	.....	.....	.....	
18	"	171	Moise Vien, St. Antoine, P.Q.	33·16	66·84	2·18	3·26	0·63	.....	.....	.....	.....	
.....	"	172	W. D. Hamill, Covey Hill, P.Q.	32·49	67·51	2·55	3·78	0·53	.....	.....	.....	.....	
.....	"	173	Wilfrid Payant, Russelltown Flats, P.Q.	32·48	67·52	2·34	3·47	0·48	.....	.....	.....	.....	

.....	"	.....	174	Geo. Hawker, Wisbeach.....	30·21	69·79	1·58	2·26	0·73	.....	0·90	0·54	0·36		
April 18	"	.....	175	R. Wilson, Franklin Centre..	31·36	68·64	1·58	2·30	0·58	.....	.....	.....	.....		
" 10	"	.....	176	J. Y. Williams, Wisbeach, Ont.	31·12	68·88	0·93	1·47	0·57	1·05	0·78	0·57	0·21	Hard maple only. Illegal under present standards.	
" 14	"	.....	177	Alex. Leblanc, Katevale, P.Q.	32·72	67·28	1·84	2·73	0·95	.....	....	.....	.....		
" 15	"	.....	178	F.W. Duston, Ayers Cliff, P.O.	35·43	64·57	1·75	2·71	0·78	.....	.....	...	.....		
" 20	"	.....	179	A. Bryan, Hatley.....	32·25	67·75	1·34	1·98	0·78	1·48	.....	.....	.....		
" 1	"	.....	180	Herbert Fletcher, Nassagaweya, Ont.	35·89	64·11	1·81	2·82	0·88	.....	.....	.....	.....		
" 18	"	.....	181	Julien Tremblay, Franklin Centre.	29·54	70·46	1·86	2·89	0·79	.....	.....	.....	.....		
" 18	"	.....	182	Laurent Prevost, Batram.....	31·13	68·87	1·52	2·21	0·77	.....	....	.....	...		
.....	"	.....	183	Robt. Lucas, Ormstown.....	28·17	71·83	2·40	3·34	0·68	.....	.....	.....	.....		
April 1	"	.....	184	Fred. Cadman, Arkona, Ont..	30·90	69·10	2·00	2·90	0·84	.....	0·94	0·64	0·30		
Mch. 29	"	.....	185	Floyd Smith, Arkona, Ont...	30·90	69·10	1·91	2·76	0·88	.....	0·90	0·54	0·36		
.....	"	.....	186	Ed. R. Lowder, Geraldine, P.Q,	31·12	68·88	1·49	2·16	0·79	.....	0·85	0·54	0·31		
April 18	"	.....	187	P. B. Vallancourt, Franklin Centre.	32·25	67·75	1·59	2·35	0·95	....	0·87	0·60	0·27		
Mch. 28	"	.....	188	G. Kingsbury, Nassagaweya, Ont.	29·98	70·02	2·11	3·01	0·95	.....	1·02	0·54	0·48		
" 31	"	.....	189	Thos. Richardson, Nassagaweya, Ont.	38·59	61·41	1·91	3·11	1·00	.....	0·91	0·54	0·37	Excess water.	
April 1	"	.....	190	John Locker, Knatchbull, Ont	32·48	67·52	1·80	2·67	0·74	...	0·91	0·55	0·36		
Mch. 31	"	.....	191	C. A. Darby, Knatchbull, Ont	31·81	68·19	1·51	2·21	0·55	.....	0·81	0·52	0·29		
" 24	"	.....	192	Will. J. McKenzie, Arkona, Ont.	31·58	68·42	2·00	2·92	0·64	.....	.....	.....	.....		
April 10	"	.....	193	W. J. Pym, Anderson, Ont..	29·99	70·01	1·79	2·56	0·92	.....	1·03	0·66	0·37		
Mch. 25	"	.....	194	J. T. Muxlow, Arkona, Ont..	30·90	69·10	2·48	3·59	0·70	.....	1·14	0·72	0·42		
" 29	"	.....	195	Carl Smith, Arkona, Ont.....	30·21	69·79	1·71	2·45	0·68	.....	0·96	0·72	0·24		
" 30	"	.....	196	G. H. Snyder, St. Ann's, Ont.	32·25	67·75	1·87	2·76	0·70	.....	.....	.....	.....		
" 31	"	.....	197	Alfred Taylor, St. Ann's, Ont.	30·32	69·78	2·22	3·18	0·72	.....	.....	.....	.....		
" 24	"	.....	198	F. Langan, Arkona, Ont.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Sample lost.	
" 25	"	.....	199	S. S. Smith, Arkona, Ont....	29·98	70·02	2·02	2·89	0·64	.....	.....	.....	.....		

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance. Lead Sub-acetate ppt.	Calculated on dry Substance. Malic Acid, value.	Lead number, Winton Method.	Ash. Total.	Ash. Water Soluble.	Ash. Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 15	Maple Syrup.....	200	Jas. Purvis, Felton, Ont. . .	37·01	62·99	2·40	3·81	0·93	....	.....	.....	.....	Excess water.
" 15	"	201	Jno. C. Low, Vernon, Ont...	32·72	67·28	2·00	2·97	0·60	.....	.....	.....	.....	
" 11	"	202	Alfred Ross, Russelldale, Ont.	38·58	61·42	1·69	2·75	0·66	.....	.....	.....	. .	Excess water.
" 15	"	203	Hector Craig & Sons, Kenmore, Ont.	31·13	68·87	1·52	2·20	0·62	.. .	. ....	.....	.....	
.....	"	204	T. H. Fuller, Watford.	33·62	66·38	1·56	2·35	0·48	.....	.....	.....	.....	
April 14	"	205	Herbert Yull, Kirkton, Ont.	30·90	69·10	2·01	2·91	0·74	.....	.....	.....	.....	
.....	"	206	M. Brooks, Alberton, Ont....	37·01	62·99	2·08	3·30	0·71	.....	...	.....	. ...	Excess water.
.....	"	207	Wilfrid Larose, Angers, P.Q.	36·56	63·44	0·89	1·57	0·74	1·12	0·85	0·60	0·25	Excess water. Illegal under present standards.
Mar. 26	"	208	J. B. Zimmerman, Silverdale, Ont.	32·71	67·29	1·74	2·59	.....	.....	1·03	0·78	0·25	
April 22	"	209	Simeon Joanis, Angers. P.Q. .	29·53	70·47	1·36	1·93	0·49	1·46	0·97	0·69	0·28	
.....	"	210	A. C. Krause, Jerseyville.....	32·48	67·52	1·92	2·84	0·56	.... ..	0·93	0·57	0·36	
Mar. 26	"	211	Wm. Marshall, Arkona, Ont..	32·48	67·52	1·90	2·81	0·88	... ..	0·91	0·45	0·46	
April 18	"	212	E. W. Acres, Vernon, Ont. ..	34·52	65·48	1·69	2·58	0·84	.....	0·85	0·41	0·44	
" 11	"	213	Ed. Hanson, Russelldale, Ont.	33·86	66·74	1·38	2·08	0·84	.. .	0·81	0·43	0·38	

" 15	"	214	W. E. R. Stanley, North Osgoode, Ont.	33·62	66·38	3·14	4·73	1·11	.....	1·30	0·57	0·73		
" 20	"	215	Ed. Ferguson, Anderson, Ont.	32·48	67·52	1·89	2·80	0·79	.....	0·97	0·76	0·21		
Mar. 31	"	216	Jno. Harcourt, St. Ann's, Ont.	32 02	67·98	2·35	3·46	0·69	.....	1·02	0·66	0·36		
" 15	"	217	W. A. Scharfe, Templeton, P.Q.	33·63	66·37	2·17	3·27	0·83	.....	1·05	0·64	0·41		
April 13	"	218	J. M. Snyder, St. Ann's, Ont.	31·12	68·88	2·00	2·90	0·50	.....	0·99	0·72	0·27		
" 13	"	219	E. Lane, Silverdale, Ont	37·63	62·37	1·54	2·47	0·72	.....	.....	.....	.....	Excess water.	
Mar. 28	"	220	W. M. Zimmerman, Smithville, Ont.	32·29	67·71	1·75	2·58	0·70	.....	.....	.....	....		
" 30	"	221	Thos. Cosby, St. Ann's, Ont.	30·44	69 56	1·67	2·40	0·87	.....	.....	.....	..		
April 13	"	222	J. A. Davis, Fallowfield, Ont.	37·01	62·99	1·55	2·46	0·57	.....	.....	.....	.....	"	
" 13	"	223	Jas. Shaw, South Gloucester, Ont.	35·65	64·35	1·81	2·81	0·86	.....	.....	.....	.....	"	
" 22	"	224	Daniel McDonald, North Osgoode, Ont.	.....	.....	.....	.....	.....	.....	.....	.....	...	Sample lost.	
" 15	"	225	Ed. Laurin, Gatineau Point..	35·20	64·80	1·12	1·73	0·60	1·24	0·84	0·60	0·24	Illegal under present standards.	
" 18	"	226	Jas. York, Springhill, Ont...	22·26	67·74	2·47	3·65	0·51	.....	1·11	0·61	0·50		
" 15	"	227	Jas. A. Baragar, Felton, Ont..	37·01	62·99	2·62	4 16	0·98	.....	.....	.....	.....	Excess water.	
" 15	"	228	Ed. York, North Osgoode, Ont	33·84	66·16	2·62	3·96	0·89	.....	.....	.....	.....		
Mch. 31	"	229	S. S. Vansickle & S. E. Drape, Jerseyville, Ont.	34·07	65·93	1·65	2·50	0·80	.....	.....	.....	.....		
.....	"	230	Edwin Vansickle, Jerseyville, Ont.	31·12	68·88	2·01	2·92	0·85	.....	.....	.....	.....		
April 13	"	231	H. H. Hitchcock, Silverdale, Ont.	32·48	67·52	1·35	2·00	0·88	.....	.....	.....	.....		
" 3	"	232	Addison Embury, Jerseyville, Ont.	31·38	68·42	1·98	2·90	0·61	.....	.....	.....	.....		
" 13	"	233	Rufus Grey, Greely, Ont.	37·46	62·54	2·37	3·79	0·95	.....	.....	.....	.....	Excess water.	
" 3	"	234	W. T. Howell, Capetown, Ont	30·22	69·78	2·09	3·00	0·83	.....	.....	.....	.....		
" 20	"	235	Silas Lennox, North Osgoode, Ont.	30·44	69·56	3·10	4·46	0 70	.....	.....	.....	.....		
Mch. 24	"	236	Wm. Yule, Kirkton, Ont. ...	32·26	67·74	1·46	2·15	0·83	.....	.....	.....	.....		
April 4	"	237	Wilbert Book, Jerseyville, Ont	32·48	67·52	1·23	1·82	0·58	1·31	0·78	0·51	0·27	Made with great care. Illegal under present standards.	
Mch. 28	"	238	A. H. Schnick, Smithville, Ont	31·13	68·87	2·00	2·90	0·77	.....	.....	.....	.....		

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance.		Lead number, Winton Method.	Ash.			
							Lead Subacetate ppt.	Malic Acid, value.		Total.	Water Soluble.	Insoluble.	
1911				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 3	Maple Syrup	239	Roy E. House, Ancaster, Ont.	32·94	67·06	1·75	2·61	0·78	.....	.....	.....	.....	
.....	"	240	Thos. C. Wilson, Jerseyville, Ont.	30·67	69·33	2·00	2·89	0·86	.....	.....	.....	.....	
Mch. 27	"	241	Ernie Patterson, Smithville, Ont.	35·21	64·79	1·06	1·63	0·55	1·17	0·75	0·63	0·12	Chiefly soft maple made with care. Illegal under present standards.
April 22	"	242	Aime Mongein, Angers, P.Q.	33·17	66·83	0·91	1·37	0·30	1·09	0·99	0·39	0·60	Illegal under present standards.
" 3	"	243	Wm. R. Kelly, Alberton, Ont.	33·85	66·15	2·10	3·18	0·68	.....	.....	.....	.....	
" 22	"	244	Robt. Henderson, Dalmeny, Ont.	33·39	66·61	2·37	3·56	1·00	.....	.....	.....	.....	
" 22	"	245	Thos. Barett, Cantley, P.Q.	37·45	62·55	3·54	5·66	1·04	.....	1·38	0·79	0·59	Excess water.
" 20	"	246	Walter Gowans, Anderson, Ont.	33·40	66·60	2·15	3·23	0·84	.....	.....	.....	.....	
" 22	"	247	Daniel Cameron, Springhill, Ont.	36·33	63·67	2·06	3·24	0·89	.....	.....	.....	.....	Excess water.
" 7	"	248	Lorne Book, Silverdale, Ont.	31·81	68·19	2·44	3·58	0·58	.....	.....	.....	.....	
" 20	"	249	M. E. Langford, Dunrobin, Ont.	32·26	67·74	2·59	3·82	0·81	.....	.....	.....	.....	
" 11	"	250	Cephas J. Drouin, Russelldale, Ont.	35·65	64·35	1·57	2·44	0·99	.....	.....	.....	.....	Excess water.
" 13	"	251	William Switzer, Anderson, Ont.	35·43	64·57	1·58	2·45	0·52	.....	.....	.....	.....	
" 13	"	252	Fred. Aubin, Gatineau Point.	35·88	64·12	1·92	3·00	1·01	.....	.....	.....	.....	Excess water

" 14	"	253	Francis Anderson, Kirkton, Ont.	30·90	69·10	1·40	2·03	0·56	.....	0·79	0·50	0·29	
" 29	"	254	Isiah Booth, Foster, P.Q.	33·17	66·83	1·66	2·48	0·59	.....	.....	.....	.....	
" 20	"	255	Ernest Rollins, South Stukely, P.Q.	32·03	67·97	1·93	2·84	0·63	.....	.....	.....	.....	
" 20	"	256	D. M. Stewart, Dalmeny, Ont.	32·43	67·57	2·17	3·21	0·88	.....	.....	.....	.....	
.....	"	257	Robt. Hill, Richmond, Ont...	37·45	62·55	2·85	4·55	1·03	.....	.....	.....	.....	Excess water.
April 19	"	258	Herman Bullis, Foster, P.Q..	32·48	67·52	1·74	2·58	0·85	.....	.....	.....	.....	
" 13	"	259	F. H. Wagener, Foster, P.Q..	34·07	65·93	1·41	2·14	0·80	.....	....	.....	.....	
" 2	"	260	Abel Gould, Lombardy, Ont..	32·48	67·52	1·50	2·22	0·63	.....	.....	.....	.....	
" 3	"	261	Ed. J. Colquhoun, Russelldale, Ont.	34·29	65·71	1·45	2·21	0·60	.....	.....	.....	....	
" 15	"	262	Jno. Kelland, Kirkton, Ont..	32·48	67·52	1·89	2·80	0·60	.....	.....	.....	.....	
" 14	"	263	Henry Page, Warden, Ont. ..	31 52	68·48	1·26	1·90	0·51	.....	0·74	0·52	0·22	
.....	"	264	Geo. Boyer.....	30·44	69·56	2·46	3·54	0·70	.....	.....	.....	....	
April 13	"	265	N. W. Chamberlain, West Bolton, P.Q.	30·20	69·80	1·64	2·35	0·87	.....	.....	.....	.....	
.....	"	266	Jno. Robert, South Stukely...	32·26	67·74	1·72	2·54	0·68	.....	.....	.....	.....	
.....	"	267	Henry Bissette, St. Ann's, P.Q.	32·03	67·97	1·95	2·87	0·63	.....	.....	.....	....	
April 13	"	268	W. D. Inglis, Foster, P.Q....	32·48	67·52	1·30	1·93	0·66	1·57	0·69	0·49	0·20	
.....	"	269	F. S. Allen, South Stukely, P.Q.	32·72	67·28	1·97	2·93	0·60	.....	.....	.....	.....	
April 20	"	270	S. G. Bowker, Warden, P.Q..	30·90	69·10	1·81	2·62	0·56	.....	.....	.....	.....	
.....	"	271	L. J. Marsh, Sweetsburg, P.Q.	30·67	69·33	1·60	2·31	0·67	.....	.....	.....	.....	
April 22	"	272	H. A. Blunt, Knowlton, P.Q..	31·59	68·41	1·94	2·84	0·71	.....	.....	.....	.....	
" 11	"	273	" " ..	33·39	66·61	2·70	4·05	0·97	.....	.....	.....	.....	
.....	"	274	W. H. Knowlton, South Stukely, P.Q.	33·62	66·38	1·76	2·65	1·09	.....	.....	.....	.....	
.....	"	275	C. B. Benham, Sweetsburg, P.Q.	32·48	67·52	2·00	2·96	0·88	.....	.....	.....	.....	
.....	"	276	F. G. Johnston, West Bolton, P.Q.	31·59	68·41	1·62	2·37	0·97	.....	.....	.....	.....	
.....	"	277	E. A. Duboyce, Foster, P.Q..	36·56	63·44	1·91	3·01	1·04	.....	.....	.....	.....	Excess water.

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance. Lead Subacetate ppt.	Calculated on dry Substance. Malic Acid, value.	Lead number, Winton Method.	Ash. Total.	Ash. Water Soluble.	Ash. Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 12	Maple Syrup.....	278	Irwin Williams, Frost Village, P.Q.	31·59	68·41	1·28	1·88	0·71	.....	0·72	0·43	0·29	
" 10	"	279	H. E. Phelps, Foster, P.Q....	32·29	67·71	1·61	2·38	0·87	.....	.....	.....	.....	
" 20	"	280	Chas. Dempsey, Vernon, Ont.	31·21	68·19	1·77	2·60	0·87	.....	.....	.....	.....	
" 13	"	281	F. Desmarais, Warden, P.Q..	31·58	68·42	1·06	1·66	0·54	0·79	0·55	0·24	...	Clarified with eggs.
" 18	"	282	W. M. Witcher, West Bolton, P.Q.	31·12	68·88	2·61	3·79	0·88	.....	.....	.....	.....	
.....	"	283	M. F. Goddard, Waterloo, P.Q.	31·12	68·88	1·49	2·23	0·77	.....	.....	.....	.....	
April 2	"	284	C. F. Goddard, Foster, P.Q..	30·90	69·10	1·34	1·94	0·68	.....	0·76	0·48	0·28	
" 10	"	285	J. M. Sweet, Foster, P.Q....	31·58	68·42	2·13	3·11	0·86	.....	.....	.....	.....	
.....	"	286	W. J. Major, West Bolton, P.Q.	34·74	65·26	2·02	3·10	0·65	.....	0·96	0·51	0·45	
.....	"	287	Fred. Whitehead, South Stukely, P.Q.	34·97	65·03	1·53	2·35	0·75	.....	0·79	0·49	0·30	
April 26	"	288	Henry Goddard, South Stukely, P.Q.	31·12	68·88	2·28	3·31	0·76	.....	0·94	0·51	0·43	
" 28	"	289	W. R. Peters, South Stukely, P.Q.	33·40	66·60	1·98	2·97	0·79	.....	0·90	0·54	0·36	
.....	"	290	E. S. Hastings, Iron Hill, P.Q.	31·35	68·65	2·02	2·94	0·91	.....	1·00	0·45	0·55	
April 27	"	291	H. J. True, Frost Village, P.Q.	39·04	60·96	2·63	4·31	0·87	.....	1·08	0·33	0·75	Excess water.

" 19	"	.....	292	C. A. Martin, Frost Village, P.Q.	30·67	69·33	1·53	2·21	0·58	...	0·93	0·63	0·30	
" 11	"	.....	293	O. A. Bradley, West Bolton, P.Q.	32·12	67·74	1·60	2·36	0·59	.....	.....	.....	.....	
" 22	"	.....	294	W. Dalpe, Iron Hill, P.Q.	34·78	65·22	1·89	2·90	0·64	.....	0·90	0·54	0·36	
" 18	"	.....	295	P. Dunlavey, West Shefford, P.Q.	32·71	67·29	1·63	2·42	0·92	.....	0·78	0·51	0·27	
" 26	"	.....	296	P. Dunlavey, West Shefford, P.Q.	33·62	66·38	1·76	2·65	0·82	.....	.....	.....	.....	
" 25	"	.....	297	Asa A. Johnson, Cowansville, P.Q.	31·35	68·65	1·40	2·04	0·96	.....	.....	.....	.....	
" 14	"	.....	298	N. G. Davis, Glen Sutton, P.Q.	30·90	69·10	1·66	2·40	0·84	.....	.....	.....	.....	
" 18	"	.....	299	P. Dunlavey, West Shefford, P.Q.	32·03	67·97	1·28	1·88	0·84	.....	0·74	0·48	0·26	Hard maple sap.
.....	"	.....	300	Geo. Fortin, Waterloo, P.Q.	32·03	67·97	1·91	2·81	0·89	.....	.....	.....	...	
" 12	"	.....	301	T. G. Sweet, Gilman, P.Q.	31·81	68·19	1·78	2·61	0·92	.....	0·99	0·63	0·36	
.....	"	.....	302	M. E. Owens, Brome, P.Q.	32·43	67·57	2·29	3·47	1·03	.....	1·13	0·67	0·46	
April 14	"	.....	303	Jas. S. Frizzle, Brome, P.Q.	31·59	68·41	1·84	2·69	0·86	.....	0·91	0·51	0·40	
" 22	"	.....	304	J. E. Jackson, Brome, P.Q.	30·90	69·10	1·80	2·61	0·86	.....	0·97	0·63	0·34	
" 14	"	.....	305	W. Dalpe, Iron Hill, P.Q.	31·35	68·65	1·51	2·20	0·90	.....	0·81	0·58	0·23	
" 22	"	.....	306	" "	31·35	68·65	1·88	2·74	1·09	.....	0·90	0·61	0·29	
" 18	"	.....	307	J. & C. Hastings, Iron Hill, P.Q.	30·90	69·10	1·60	2·32	0·94	.....	0·84	0·48	0·36	
" 14	"	.....	308	J. T. Johnston, Brome, P.Q.	36·50	63·50	1·90	2·99	1·07	.....	0·96	0·55	0·41	Excess water.
" 15	"	.....	309	Jas. S. Frizzle, Brome, P.P.	32·48	67·52	2·26	3·35	0·94	.....	0·91	0·54	0·37	
" 22	"	.....	310	G. E. Vernal, Brome Centre, P.Q.	31·59	68·41	2·17	3·17	1·04	.....	0·97	0·61	0·36	
" 15	"	.....	311	T. G. Sweet, Gilman, P.Q.	33·16	66·84	1·94	2·90	0·91	.....	0·90	0·51	0·39	
" 22	"	.....	312	J. G. Edwards, Brome, P.Q.	33·16	66·84	2·47	3·70	0·98	.....	1·08	0·48	0·60	
" 22	"	.....	313	W. Dalpe, Iron Hill, P.Q.	32·62	67·28	1·83	2·72	0·84	.....	0·87	0·54	0·33	
" 26	"	.....	314	P. Dunlaney, West Shefford, P.Q.	35·43	64·57	1·82	2·82	1·02	.....	0·87	0·45	0·42	
" 20	"	.....	315	H. B. Bickford, Glenn Sutton, P.Q.	30·67	69·33	2·27	3·27	0·88	.....	1·05	0·69	0·36	
" 10	"	.....	316	L. A. Palmer, Sutton Junction, P.Q.	30·22	69·78	1·90	2·72	0·64	.....	.....	.....	.....	

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt	Calculated on dry Substance.		Lead number, Winton Method.	Ash.			
							Lead Subacetate ppt.	Malic Acid, value.		Total.	Water Soluble.	Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 21	Maple Syrup.	317	Asa Johnston, Cowansville, P.Q.	31·13	68·87	1·49	2·16	0·78	.....	0·75	0·48	0·27	
" 15	"	318	J. G. Edwards, Brome, P.Q..	30·90	69·10	1·65	2·39	0·68	.....	0·84	0·49	0·35	
" 21	"	319	A. J. Marsh, Sweetsburg....	39·25	60·75	2·22	3·65	1·00	.....	0·95	0·39	0·56	Excess water.
Mch. 30	"	320	J. G. Edwards, Brown's Corners.	31·67	68·43	1·62	2·37	0·70	.....	0·87	0·55	0·32	
April 14	"	321	H. S. Vail, Brome, P.Q.....	31·13	68·87	1·57	2·28	0·56	.....	.....	.....	.....	
" 8	"	322	A. J. Hawley, Sutton Junction, P.Q.	31·81	68·19	2·28	3·34	0·90	.....	.....	.....	.....	
.....	"	323	— Ryan, Sutton Junction, P.Q	32·43	67·57	1·98	2·93	0·83	.....	.....	.....	.....	
April 21	"	324	Walter Tracy, Brome, P.Q. ..	31·35	68·65	1·75	2·55	0·81	.....	.....	.....	.....	
.....	"	325	" "	30·66	69·33	1·60	2·31	0·62	.....	.....	.....	.....	
" 21	"	326	Walter Tracy, Brome, P.Q....	30·90	69·10	1·66	2·40	0·87	.....	.....	.....	.....	
" 21	"	327	Taylor & Mason, Iron Hill, P.Q.	32·03	67·97	1·82	2·68	0·68	.....	.....	.....	.....	
" 21	"	328	C. C. Jenne, Brome, P.Q.....	34·31	65·69	2·78	4·23	0·76	.....	.....	.....	.....	
" 18	"	329	E. W. Roy, Brome, P.Q.....	30·20	69·80	2·21	3·17	0·79	.....	.....	.....	.....	
" 15	"	330	Jas. Patten, Brome, P.Q.	31·12	68·88	1·36	1·98	0·71	.....	0·75	0·51	0·24	

" 2	"	.....	331	J. & C. Hastings, Iron Hill, P.Q.	31·12	68·88	2·57	3·73	0·64	.....	....	.....	.....	
" 8	"	.....	332	J. H. Norton, Sutton Junction	32·71	67·29	1·89	2·81	0·74	.....	.....	.....	.....	
" 13	"	.....	333	David Kirby, Brome, P.Q....	31·12	68·88	1·87	2·72	0·72	.....	.....	.....	.....	
" 19	"	.....	334	E. Roy, West Brome, P.Q....	32·29	67·78	1·64	2·42	0·77	.....	.....	.....	.....	
" 17	"	.....	335	Geo. H. Westover, East Hill, P.Q.	34·07	65·93	1·68	2·55	0·80	.....	.....	.....	.....	
" 19	"	.....	336	Sherman Frizzle, Brome Centre.	33·90	66·10	2·28	3·45	0·59	...	....	.....	.. .	
.....	"	.....	337	Wood Kashan, West Brome..	32·48	67·52	1·94	2·87	0·85	.....	.....	.....	.....	
.....	"	.....	338	Jno. Chamberlain, East Hill, P.Q.	30·90	69·10	1·31	1·90	0·76	1·32	0·75	0·48	0·27	Made with care.
April 13	"	.....	339	D. Hart, Sutton Junction	34·07	65·93	1·90	2·88	1·07	.....	....	.....	.....	
" 12	"	.....	340	S. A. Sweet, Sutton Junction.	30·90	69·10	1·80	2·60	1·09	.....	.....	.....	.....	
" 5	"	.....	341	Nelson Mitchell, Molesworth, Ont.	31·58	68·42	2·35	3·43	0·77	.....	.. .	.....	.....	
May 1	"	.....	342	Alex. McKercher, Wroxeter, Ont.	32·03	67·97	1·83	2·69	0·91	.....	.....	....	.....	
April 17	"	.....	343	Geo. McDonald, Wroxeter, Ont.	32·29	67·71	1·34	1·86	0·72	.....	0·83	0·58	0·25	Second growth maples.
" 13	"	.....	344	Arthur Hibbard, Sutton Junction, P Q.	32·48	67·52	1·35	2·00	0·77	.....	0·78	0·51	0·27	
" 10	"	.....	345	E. E. Farmer, North Sutton..	31·57	68·43	1·42	2·08	0·59	.....	.....	.....	.....	
.....	"	.....	346	Walter H. Patch, Brome, P.Q.	30·90	69·10	1·71	2·48	0·89	.....	....	.....	.....	
April 16	"	.. ....	347	W. J. Brown, Dunbon, P.Q..	35·65	64·35	2·10	3·26	0·86	.....	.....	.....	.....	Excess water.
" 7	"	.....	348	Herbert Toof, Sutton Junction	31·13	68·87	2·65	3·85	0·91	.....	.....	.....	.....	
" 24	"	.....	349	Fred Johnson, Brome Corners, P.Q.	33·84	66·16	1·56	2·36	0·63	.....	....	.....	.....	
" 22	"	.....	350	J. J. Emmerson, Sutton Junction.	30·90	69·10	1·80	2·61	0·60	.....	.... .	.....	.....	
" 22	"	.....	351	A. A. Methivia, East Hill, P.Q.	34·52	65·48	1·48	2·26	0·76	.....	.....	.....	.....	
.....	"	.....	352	J. Page, Sutton Junction.....	32·29	67·71	2·00	2·96	0·91	.....	.....	.....	.....	
.....	"	.....	353	W. St. Martin, Brome, P.Q..	33·90	66·10	1·36	2·06	0·84	.....	.....	.....	.....	
April 14	"	.....	354	C. E. Larocque, Glenn Sutton	37·90	62·10	2·08	3·35	1·04	.....	.....	.....	.....	Excess water.
" 15	"	.....	355	E. V. Farmer, Brome, P.Q...	32·62	67·28	1·70	2·53	0·99	.....	.....	.....	.....	

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance. Lead Subacetate ppt.	Calculated on dry Substance. Malic Acid, value.	Lead number, Winton Method.	Ash. Total.	Ash. Water Soluble.	Ash. Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 10	Maple Syrup..	356	Jos. Robinson, Molesworth, Ont.	32·98	67·02	2·29	3·42	1·15	.....	.....	.....	.....	
" 14	"	357	W. Grainger, Molesworth, Ont	33·39	66·61	1·55	2·33	0·88	.....	.....	.....	.....	
" 11	"	358	C. E. Richard, Brome, P.Q..	32·43	67·57	1·64	2·43	0·91	.....	.....	.....	....	
" 6	"	359	C. B. Moffatt, Wroxeter, Ont.	31·59	68·41	1·80	2·63	0·92	.....	.....	.....	.....	
" 13	"	360	Stewart Bros., Molesworth, Ont.	37·46	62·54	1·59	2·54	1·05	.....	.....	.....	.....	Excess water.
" 11	"	361	C. C. Jenne, Brome, P.Q.....	32·26	67·74	2·10	3·10	0·93	.....	.....	.....	.....	
" 21	"	362	C. C. Pope, Wroxeter, Ont....	30·20	69·80	2·60	3·72	1·03	.....	.....	.....	.....	
Mch.	"	363	Jas. A. Edgar, Wroxeter, Ont.	33·17	66·83	2·27	3·40	1·03	.....	.....	.....	.....	
April 15	"	364	G. E. Vernal, Brome Centre, P.Q.	33·03	67·97	1·49	2·19	0·80	.....	.....	.....	.....	
" 22	"	365	J. G. Edwards, Brome, P.Q..	31·12	68·88	1·50	2·18	0·86	.....	.....	.....	.....	
" 21	"	366	E. M. Palmer, Brome, P.Q.	36·55	63·45	2·15	3·39	0·92	.....	.....	.....	.....	Excess water.
" 12	"	367	David Kirby, Brome, P.Q..	37·45	62·55	1·67	2·67	1·05	.....	.....	.....	.....	Excess water
" 21	"	368	Jas. S. Frizzle, Brome, P.Q..	31·12	68·88	1·88	2·73	0·98	.....	.....	.....	.....	
" 21	"	369	J. T. Johnston, Brome, P.Q..	32·49	67·51	1·67	2·47	0·99	.....	.....	.....	.....	
" 15	"	370	E. M. Palmer, Brome, P.Q...	34·29	66·71	1·45	2·21	0·94	.....	.....	.....	.....	

" 17	"	.....	371	C. E. Richard, Brome, P.Q...	31·57	66·43	1·45	2·12	0·65	.....	.....	.....	.....	
" 14	"	.....	372	David Kirby, Brome, P.Q....	33·84	66·16	1·82	2·75	0·81	.....	.....	.....	.....	
" 10	"	.....	373	R. Sharpin, Wroxeter, Ont...	32·29	67·71	2·60	3·84	0·94	.....	.....	.....	.....	
.....	"	.....	374	Russell Baihew, Coaticook....	32·48	67·52	1·55	2·30	0·97	.....	.....	.....	.....	
April 24	"	.....	375	Chas. H. Smith, Hatley	30·90	69·10	1·45	2·10	0·81	.....	.....	.....	.....	
" 13	"	.....	376	R. G. Dunbar, Melboro.....	31·58	68·42	2·27	3·32	0·84	.....	.....	.....	.....	
" 11	"	.....	377	Adam Budger, Melbourne Bridge, P.Q.	30·20	69·80	2·17	3·11	0·74	.....	.....	.....	.....	
" 15	"	.....	378	Edmund Bosquet, St. Pie de Bagot.	32·98	67·02	2·74	4·09	1·10	.....	.....	.....	.....	
" 14	"	.....	379	E. Gouriard, St. Hyacinthe, P.Q.	32·12	68·88	1·44	2·09	0·85	.....	.....	.....	.....	
" 22	"	.....	380	Oliver Martin, Katevale, P.Q.	30·20	69·80	1·61	2·31	0·75	.....	.....	.....	.....	
" 15	"	.....	381	Prosper Masson, St. Simon de Bagot.	31·35	68·65	1·71	2·49	0·91	.....	.....	.....	.....	
.....	"	.....	382	C. O. Martin, Frost Village, P.Q.	30·90	69·10	1·61	2·33	0·79	.....	.....	.....	.....	
.....	"	.....	383	P. R. Peter, South Stukely...	29·54	70·46	1·32	1·88	0·61	1·27	0·75	0·51	0·24	
May 15	"	.....	384	G. Beaupre, St. Hyacinthe, P.Q.	31·59	68·41	1·83	2·68	0·71	.....	.....	.....	.....	
April 18	"	.....	385	Pierre Cariere, Compton, P.Q.	30·90	69·10	1·32	1·70	0·72	1·25	0·84	0·60	0·24	Illegal under present standards.
" 24	"	.....	386	Curtis Morrison, Barnston, P.Q	34·75	65·25	1·80	2·77	0·70	.....	.....	.....	.....	
" 17	"	.....	387	J. A. Wright, Melboro, P.Q..	32·48	67·52	1·87	2·77	0·87	.....	.....	.....	.....	
" 20	"	.....	388	Jno. Stalker, Kingsbury	31·13	68·87	1·58	2·30	0·75	.....	.....	.....	.....	
.....	"	.....	389	W. B. Birch, Coaticook	32·94	67·06	1·41	2·10	0·89	.....	.....	.....	.....	
April 10	"	.....	390	P. P. Fowler, Dublin.....	30·67	69·33	1·96	2·83	0·87	.....	.....	.....	.....	
" 16	"	.....	391	Amedée Boivin, Coaticook....	31·12	68·88	1·03	1·50	0·68	1·17	0·70	0·47	0·23	Illegal under present standards.
May 6	"	.....	392	J. F. Parsons, Barnston, P.Q.	34·07	65·93	1·09	1·66	0·85	1·07	0·72	0·42	0·30	Made with great care. Illegal under present standards.
April 21	"	.....	393	H. Webster, Hillhurst.... ...	35·44	64·56	2·34	3·63	1·09	.....	.....	.....	.....	
" 22	"	.....	394	Xavier Fontaine, St. Pie de Bagot, P.Q.	33·16	66·84	1·92	2·87	0·91	.....	.....	.....	.....	
" 15	"	.....	395	W. Pocock, Hillhurst..... ...	33·62	66·38	1·19	1·80	0·83	1·55	0·75	0·42	0·33	Very carefully made.

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance.		Lead number, Winton Method.	Ash.			
							Lead Subacetate ppt.	Malic Acid, value.		Total.	Water Soluble.	Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 21	Maple Syrup.....	396	John Stoddard, Magog.	29·55	70·45	3·23	4·59	0·82	.....	1·19	0·66	0·53	
" 22	"	397	D. Goyette, St. Valerien. ...	31·13	68·87	3·28	3·31	0·85	.....	.....	.....	.....	
.....	"	398	C. R. Ruter, Smith's Mills, P.Q.	34·31	65·69	2·66	4·05	0·82	.....	.....	.....	.....	
April 15	"	399	David Kirby, Brome, P.Q....	49·68	50·32	1·82	3·62	0·97	.....	.....	.....	.....	Great excess water.
" 21	"	400	P. P. Brainard, Boynton, P.Q.	25·41	74·59	2·27	3·04	0·35	.....	1·04	0·54	0·50	Malic acid low.
" 20	"	401	O. A. Brock, Glenn Sutton, P.Q.	29·99	70·01	1·71	2·44	0·68	.....	1·00	0·69	0·31	
" 15	"	402	P. Bernier, St. Dominique de Bagot.	32·26	67·74	2·00	2·95	0·60	.....	.....	.....	.....	
" 15	"	403	H. Chagnon, St. Hyacinthe, P.Q.	30·67	69·32	1·79	2·58	0·88	.....	.....	.....	.....	
" 22	"	404	E. Westover, Brome, P.Q....	31·36	68·64	2·18	3·18	0·90	.....	.....	.....	.....	
.....	"	405	G. H. Gove, Smith's Mills, P.Q.	39·93	60·07	2·24	3·73	1·16	.....	.....	.....	.....	Excess water.
April 21	"	406	J. L. Harvey, Iron Hill, P.Q.	30·32	69·78	1·77	2·54	1·11	.....	0·99	0·63	0·36	
" 21	"	407	J. W. Bremner, Boynton, P.Q	30·22	69·78	2·29	3·28	0·93	.....	.....	.....	.....	
" 23	"	408	Edmond Vien, St. Thomas D'Aquint.	30·53	70·47	2·34	3·32	0·92	.....	1·14	0·69	0·45	
" 19	"	409	C. R. Ruter, Smith's Mills, P.Q.	30·43	69·57	1·86	2·67	0·90	.....	.....	.....	.....	

" 21	"	.....	410	N. G. Danis, Glenn Sutton, P.Q.	30·44	69·56	1·43	2·06	0·84	.....	0·90	0·69	0·21	
" 22	"	.....	411	C. E. Rhicard, Brome, P.Q...	31·12	68·88	2·14	3·11	0·85	.....	.....	.....	.....	
" 15	"	.....	412	Jos. Forward, Katevale, P.Q..	32·03	67·97	2·30	3·38	0·86	.....	.....	.....	.....	
" 19	"	.....	413	.....	34·52	65·48	1·88	2·87	0·97	.....	.....	.....	.....	
" 22	"	.....	414	Geo. J. Casavant, St. Pie de Bagot.	31·35	68·65	1·64	2·39	0·84	.....	.....	.....	.....	
May 1	"	.....	415	Clark Hall, Sweetsburg, P.Q..	32·48	67·52	2·55	3·78	0·74	.....	.....	.....	.....	
.....	"	.....	416	M. E. Owens, Brome, P.Q....	30·44	69·56	1·94	2·79	1·06	.....	.....	.....	.....	
.....	"	.....	417	Jos. Allaire, St. Ours, P.Q. ..	30·43	69·57	2·06	2·96	0·83	.....	.....	.....	.....	
April 19	"	.....	418	A. O. Bish, Glenn Sutton, P.Q.	30·90	69·10	1·44	2·08	0·78	.....	.....	.....	.....	
.....	"	.....	419	C. Cleche, Beauce, Sample 1..	31·12	68·88	2·64	3·83	0·90	.....	.....	.....	.....	
.....	"	.....	420	" " 2..	28·62	71·38	4 68	6·56	1·06	.....	.....	.....	.....	
.....	"	.....	421	" " 3..	28·40	71·60	1·99	2·78	0·78	.....	.....	.....	.....	
April 20	"	.....	422	Blake & Son, South Stukeley..	31·80	68·20	1·46	2·14	0·86	.....	.....	.....	.....	
" 1	"	.....	423	Inspector Talbot, No. 48331..	30·44	69·56	1·54	2·21	0·76	.....	0·86	0·56	0·30	
" 1	"	.....	424	" " 48332..	32·48	67·52	1·60	2·37	0·65	.....	.....	.....	.....	
" 1	"	.....	425	" " 48333..	34·68	65·22	1·66	2·55	0·71	.....	.....	.....	.....	
" 1	"	.....	426	" " 48334..	32·49	67·51	1·03	1·53	0·72	1·25	0·70	0·45	0·25	Illegal under present standards.
" 1	"	.....	427	" " 48335..	36·34	63·66	1·42	2·23	0·75	.....	0·76	0·54	0·22	Excess water.
" 1	"	.....	428	" " 48336..	29·99	70·01	1·56	2·23	0·90	.....	.....	.....	.....	
" 1	"	.....	429	" " 48337..	31·84	68·16	2·38	3·60	0·94	.....	.....	.....	.....	
" 1	"	.....	430	" " 48339..	33·16	66·84	1·67	2·50	1·02	.....	.....	.....	.....	
" 1	"	.....	431	" " 48340..	31·59	68·41	1·67	2·44	1·06	.....	.....	.....	.....	
" 1	"	.....	432	" " 48341..	31·57	68·43	1·72	2·51	0·86	.....	.....	.....	.....	
" 1	"	.....	433	" " 48342..	31·80	68·20	2·22	3·25	0·77	.....	.....	.....	.....	
" 19		.....	434	Alph. Boullette, Mont St. Hilaire.	30·43	69·57	2·28	3·28	0·57	.....	.....	.....	.....	

BULLETIN No. 228—EXAMINATION OF MAPLE SYRUP, SAMPLES SUPPLIED BY MAKERS UNDER DECLARATION OF GENUINENESS, SEASON 1911.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Manufacturer.	Results of Analysis.									Remarks and Opinion of the Chief Analyst.
				Moisture.	Solids.	Lead Subacetate ppt.	Calculated on dry Substance. Lead Subacetate ppt.	Calculated on dry Substance. Malic Acid, value.	Lead number, Winton Method.	Ash. Total.	Ash. Water Soluble.	Ash. Insoluble.	
1911.				p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
April 12	Maple Syrup.....	435	Mr. Learie, L. Avenir.....	30·90	69·10	1·61	2·33	0·50	.....	0·87	0·54	0·33	
Mch. 25	"	i.	G. H. Loosie, Burgessville, P.Q.	38·32	61·80	.....	3·58	0·35	2·38	0·74	0·55	0·19	Excess water, malic acid low,
" 25	"	ii.	J. R. McGlease, Burgessville, P.Q.	34·40	65·60	.....	2·98	0·39	2·31	.....	.....	.....	Malic acid, low.
" 25	"	iii.	J. Jacques, Burgessville, P.Q.	33·82	66·18	.....	3·41	0·43	2·31	0·75	0·51	0·24	
" 25	"	iv.	J. C. Skinner, Burgessville, P.Q.	35·68	64·32	.....	3·51	0·40	2·36	.....	.....	.....	Excess water.
" 25	"	v.	H. A. Griswold, Burgessville, P.Q.	35·08	64·92	.....	3·15	0·30	2·29	0·78	0·57	0·21	Malic acid, low.
" 25	"	vi.	Sydney Fiddy, Hallbrook, Ont	41·20	58·80	.....	3·14	0·44	2·28	.....	.....	.....	Excess water.
" 25	"	vii.	W. Briggs, Hallbrook, Ont. ..	34·38	65·62	.....	3·06	0·32	1·98	0·70	0·56	0·14	Malic acid, low.
" 25	"	viii.	Elgin Birch, Hallbrook, Ont..	36·82	63·18	.....	3·09	0·64	2·04	.....	.....	.....	Excess water.
" 25	"	ix.	Powley Addison, Hallbrook, Ont.	38·72	61·28	.....	2·60	0·58	2·31	.....	.....	.....	"
" 25	"	x.	Cecil Chambers, Hallbrook, Ont.	36·88	63·12	.....	2·94	0·39	2·26	.....	.....	.....	"
" 25	"	xi.	Albert Rocket, Hallbrook, Ont	33·36	66·64	.....	2·21	0·36	2·18	.....	.....	.....	Malic acid, low.
" 25	"	xii.	J. R. Woodwin, Beaconsfield, Ont.	37·14	62·86	.....	2·74	0·68	2·31	.....	.....	.....	Excess water.
" 25	"	xiii.	Stephen Hopkins, Beaconsfield, Ont.	36·48	63·52	.....	3·63	0·53	2·10	.....	.....	.....	"

"	25	"	xiv.	W. Potter, Beachville Road, Woodstock, Ont.	34·64	65·36	.....	3·23	0·46	2·21	.....	.....	.....		
"	25	"	xv.	Edwin Wand, New Durham, Ont.	32·86	67·14	.....	3·10	0·44	2·16	.....	.....	.....		
"	25	"	xvi.	J. E. Rice, New Durham, Ont.	35·22	64·78	.....	3·13	0·54	2·30	.....	.....	.....		
"	25	"	xvii.	J. Karn, Woodstock, Ont.	34·26	65·74	.....	2·82	0·38	2·17	0·72	0·52	0·20	Malic acid, low.	
	25	"	xviii.	E. T. Chambery, Oxford Centre, Ont.	28·14	71·82	.....	3·44	0·47	2·08	.....	.....	.....		
"	25	"	xix.	Fred. Hewitt, Zenda, Ont.	37·68	62·32	.....	3·28	0·44	2·34	.....	.....	.....	Excess water.	
"	25	"	xx.	R. Denver, Zenda, Ont.	37·44	62·56	.....	3·13	0·64	2·33	.....	.....	.....	"	
"	25	"	xxi.	W. Sager, Vandicar, Ont.	33·62	66·38	.....	3·10	0·60	2·25	.....	.....	.....		
"	25	"	xxii.	Ed. Reidhead, Eastwood, Ont.	37·44	62·56	.....	3·06	0·51	2·24	.....	.....	.....	Excess water.	
"	25	"	xxiii.	Luke Gilholm, Bright, Ont.	35·74	64·28	.....	3·70	.....	2·25	.....	.....	.....	"	
"	25	"	xxiv.	W. Derbyshire, Norwich, Ont.	31·76	68·24	.....	3·61	.....	2·15	.....	.....	.....		
Oct.	10	"	A.	J. Y. Williams, Wisbeach, Ont.	33·17	66·83	.....	1·91	0·63	.....	0·92	.....	.....	Hard maple sap.	See sample 176.
"	10	"	B.	" "	30·44	69·56	.....	1·85	0·57	.....	0·83	.....	.....	Hard maple sap.	
"	10	"	C.	" "	31·36	68·64	.....	1·38	0·56	.....	0·85	.....	.....	"	
"	10	"	D.	" "	33·62	66·38	.....	2·44	0·51	.....	0·96	.....	.....	"	

APPENDIX E.

BULLETIN No. 229—OLIVE OIL.

OTTAWA, October 24, 1911.

W J. GERALD, Esq.
Deputy Minister of Inland Revenue.

SIR,—I have the honour to forward you herewith a report upon the examination of 152 samples of Olive Oil, purchased by our inspectors throughout Canada in April of this year. Of this number 139 samples are found to be genuine, and 13 samples are adulterated under the terms of the Act. The adulteration consists in every case of an admixture of Cotton Seed Oil, 'an inferior or cheaper substance' (Sec. 3 (*b*), without declaration of this fact (Sec. 3 (*d*).

It appears from correspondence had with importers and vendors, that in some cases this article has been sold in good faith, as believed to be genuine Olive Oil. It is imported for the most part, in sealed containers, and apparently represented as Olive Oil. While this fact seems to exculpate the immediate vendors from any charge of intent to defraud, it does not warrant me in describing the samples as other than adulterated under the Act.

Olive Oil has been collected and examined on four different occasions, with the following results :—

Bulletin.	Date.	Total Samples.	Genuine.	Adulterated	Doubtful.	Sold as Salad Oil.
67	1889	75	40	30	5	—
111	1905	108	66	16	2	24
159	1908	82	64	15	—	3
229	1911	152	139	13	—	—

Percentage of adulteration, 40, 15, 18 and 8.

It is gratifying to note that the percentage of adulteration is greatly reduced since 1889, when the first inspection was made.

It is right also to point out that as concerns healthfulness there is no case against well refined Cotton Seed Oil as a food substance, either alone or in admixture. Adulteration consists in the sale of the article under a name which properly belongs to another food material.

The following standards for Olive Oil are respectfully recommended for further study, with reference to legalization, under Section 26 of the Adulteration Act. It is to be noted that, except in the last particular, they do not take into consideration the quality of the oil ; but only its genuineness as regards specific identity.

PROPOSED STANDARDS FOR OLIVE OIL.

Olive Oil, is entirely a product of the fruit of the Olive tree.

Its specific gravity at 15·5° centigrade, is not less than 0·9140, nor more than 0·9196.

Its specific refractive index at 15·5° C. is not less than 1·4700 nor more than 1·4718.

Its Maumene number varies from 42 to 52.

Its iodine absorption number (using the Hübl solution) lies between 77 per cent and 94 per cent.

Its saponification (Kœttstorfer) number lies between 185·0 and 195·0.

It does not contain above 3·5 per cent of free fatty acids.

I beg to recommend the publication of this report as Bulletin No. 229.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst

BULLETIN No. 229—OLIVE OIL.

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of Opinion.)	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Refractive index at 15·5 c.	Iodine number.	Nitric Acid Colour test.	Halphen's Colour test.		
DISTRICT OF NOVA SCOTIA R. J. WAUGH, INSPECTOR.														
1911.														
April 18	Olive Oil.	42261	O. Lyons, Kentville, N.S.	3 bots.	75	Crosse & Blackwell, London, Eng.	Unknown	.....	1·4701	....	Green ..	....	42261	Genuine.
" 19	" ..	42262	W. Low & Co., Yarmouth, N.S.	"	54	"	Manufacturers..	Pure Lucca oil..	1·4703	.....	" ..	.....	42262	"
" 19	" ..	42263	Yerxas, Yarmouth, N.S.	"	45	"	" ..	.....	1·4693	.....	" ..	....	42263	"
" 20	" ..	42264	R. F. Guest, Yarmouth, N.S.	1 pt.	50	Cagnoli, Nice, Italy	E. Allan, Yarmouth, N.S.	Sold as Lucca oil	1·4705	.....	" ..	.....	42264	"
" 24	" ..	42265	Nat. Drug. & Chem. Co., Halifax, N.S.	1 "	35	Unknown	N. D. & C. Co., Montreal.	.....	1·4707	....	" .	.....	42265	"
" 24	" ..	42266	Bauld Bros., Ltd., Halifax, N.S.	3 bots.	88	Fratelli Alfonso, Lucca, Italy.	Reiss & Brady, New York.	Sold as Lucca oil	1·4700	....	" ..	.....	42266	"
" 24	" ..	42267	Wentzells, Ltd., Halifax, N.S.	3 "	75	Gaillard & fils, France.	Manufacturers.	" "	1·4705	....	" ..	...	42267	"
" 25	" ..	42268	J. Rawley, Halifax, N.S.	1 pt.	60	Unknown	N. D. & C. Co., Halifax, N.S.	.....	1·4708	.....	" ..	.....	42268	"
" 25	" ..	42269	C. E. Huggins. Halifax, N.S.	1 "	50	Gaillard & fils, France.	Wentzells, Ltd., Halifax, N.S.	.....	1·4702	.....	" ..	.....	42269	"
" 25	" ..	42270	M. D. Logan, Halifax, N.S.	1 "	50	Unknown.....	N. D. & C. Co., Halifax, N.S.	.....	1·4701	.....	" ..	.....	42270	"

DISTRICT OF PRINCE EDWARD ISLAND—THEO. MOORE, INSPECTOR.

April	6	Olive Oil.	46031	J. G. Jamieson, Charlottetown.	1 pt.	50	J. B. & A. Artand, frères, Marseille.	.....	.....	1·4701	.....	Green..	.....	46031	"
"	6	" ..	46032	G. E. Hughes, Charlottetown.	1 "	50	Sociétée des Huiles d' Olive, Nice, France.	.....	.....	1·4700	.....	" ..	.....	46032	"
"	6	" .	46033	A. Galis & Co., Charlottetown.	1 "	45	Crosse & Blackwell, London, Eng.	.....	.....	1·4699	.....	" ..	.....	46033	"
"	7	" ..	46034	Johnson & Johnson, Charlottetown.	1 "	50	A. Guiot & Cie, Aix en Provence.	.....	.....	1·4699	.....	" ..	.....	46034	"
"	10	" ..	46035	J. C. Ferguson, Souris.	1 "	50	.....	Nat. Drug Co., Halifax, N.S.	.....	1·4699	.....	" ..	.....	46035	"
"	11	" ..	46036	Matthew & McLean, Souris.	1 "	45	.....	E. Lazenby & Sons, London.	Finest Lucca oil.	1·4699	.....	" ..	.....	46036	"
"	24	" ..	46037	Dr. McLeod, Hunter River.	1 "	50	.....	Ingram & Bell, Montreal.	.....	1·4705	.....	" ..	.....	46037	"
"	24	" ..	46038	Keir & McFadyen, Kensington.	1 "	50	.....	N. C. Polson, Montreal.	.....	1·4701	.....	" ..	.....	46038	"
"	25	" ..	46039	McFadyen & McLellan, Summerside.	1 "	50	Schoder & Schylerof, Bordeaux, France.	.....	.....	1·4693	.....	" .	.....	46039	"
"	25	" ..	46040	A. W. P. Gourlie, Summerside.	1 "	50	Flogette & Gueorippi, Italy.	.....	.....	1·4738	104	Brown..	..	46040	Adulterated

DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR.

Mch.	29	Olive Oil.	45454	Northrup & Co., St. John, N.B.	3 bots.	70	Tessier frére, France.	.....	"Tallos" Brand	1·4705	.....	Green..	. . .	45454	Genuine.
"	31	" ..	45455	G. K. Bell, St. John, N.B.	1 pt.	50	.....	Nat. Drug. & Chem. Co., Ltd., St. John, N.B.	Olympia "	1·4703	..	" ..	.. ..	45455	"
"	31	" ..	45456	E. Clinton Brown, St. John, N.B.	1 "	50	Tessier frère, France.	.....	Tallos "	1·4702	.....	" ..	...	45456	"
April	4	" .	45457	W. Hawker & Son, St. John, N.B.	1 "	85	.....	Nat. Drug. & Chem. Co., Ltd., St. John, N.B.	Na-Dru-Co. "	1·4705	.....	" ..	....	45457	"
"	10	" ..	45458	Chas. A. Burchill, Fredericton, N.B.	1 "	60	Warrick frère, Grasse, France.	.....	Huile d'Olive Surfine.	1·4706	....	" ..	..	45458	"
"	10	" ..	45459	Geo. T. Whelpley Estate, Fredericton, N.B.	3 bots.	75	Layenby & Son, Ltd., London, Eng.	.....	Huile de Provence Surfine.	1·4707	...	" ..	...	45459	"
"	11	" ..	45460	The Baird Co., Ltd., Woodstock, N.B.	1 pt.	50	Societée des Huiles d'Olive, de Nice, France.	.....	.....	1·4705	.....	" ..	.....	45460	"

BULLETIN No. 229—OLIVE OIL.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of Opinion.)	Results of Analysis. Refractive index at 15·5 c.	Iodine number.	Nitric Acid Colour test.	Halphen's Colour test.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR—*Concluded.*														
1911.														
April 19	Olive Oil..	45461	B. J. Sharp, Sussex, N.B.	1 pt.	70	.....	Nat. Drug. & Chem. Co.. Ltd., St. John, N.B.	Na-Dru-Co. Brand.	1·4707	.....	Green...	.....	45461	Genuin.
" 20	" ..	45462	Fairweather Bros. Moncton, N.B.	1 "	75	.....	Lymans Ltd., Montreal.	Sample from Can labelled A. Guiot & Cie, Aix en Provence, France.	1·4707	.....	" ..	.....	45462	"
" 22	" ..	45463	The McCarthy Drug Co., Bathurst, N.B.	1 "	60	.....	The Canadian Drug.Co.,Ltd., St. John, N.B.	Vestal Oil. Huile d'Olive Vierge. S. S. Schroder & Schryfers, Bordeaux, France.	1·4709	.....	" ..	...	45463	"
DISTRICT OF QUEBEC—F. X. W. E. BELAND, INSPECTOR.														
Mch. 28	Olive Oil.	36911	J. B. Morin, 318½ Rue St. Joseph, Quebec.	1 pt.	40	Gerard Jolie, France.	Unknown	.....	1·4704	Green	.....	.....	36911	Genuine.
" 29	" ..	36912	O. Lacroix, 19 Rue St. Joseph, Quebec.	1 "	40	Aboosamoa Kouri, Montreal.	Manufacturer...	.....	1·4719	94	Brown..	Red..	36912	Adulterated
" 30	" ..	36913	L. E. Martel, 19 Rue St. Joseph, Quebec.	1 "	40	Unknown	Nat. Drug Co., Montreal.	.....	1·4704	...	Green...	....	36913	Genuine.
" 31	" ..	36914	W. Brunet, et Cie, 139 Rue St. Joseph, Quebec.	1 "	40	Gerard Jolie, France.	Unknown ...	.....	1·4699	.....	" ..	.....	36914	"

April	5	" ..	36915	Arthur Drolet, 714 Rue St. Valier, Quebec.	1 "	40	Henri Etienne, Boulle, Mars.	Laporte & Martin, Montreal.	.....	1·4707	.....	" ..	.....	36915	"
"	5	" ..	36916	Hamel & Bedard, 528 Rue St. Valier. Quebec.	1 "	57	Henri Etienne, Boulle, Marseille.	N. Rioux & Cie, Quebec.	.....	1·4699	.....	" ..	.....	36916	"
"	6	" ..	36917	Alphonse Martineau, 734 Rue St. Valier, Quebec.	1 "	50	Gerard Jolie, aix de Nice, France.	Dr. Ed. Morin et Cie.	.....	1·4701	.....	" ..	.....	36917	"
"	7	" ..	36918	Joseph Masson, 808 Rue St. Valier, Quebec.	1 "	60	Nat. Drug. Co., Montreal.	Manufacturers. .	.....	1·4699	.....	" ..	.....	36918	"
"	7	" ..	36919	" " ..	1 "	80	Gerard Jolie aix de Nice, France.	Dr. Ed. Morin et Cie.	.....	1·4699	.....	" ..	.....	36919	"
"	11	" ..	36920	A. E. Francoeur, 379½ Rue St. Jean, Quebec.	1 "	50	Unknown	Lyman, Knox Co., Montreal.	.....	1·4739	107	Brown..	Red..	36920	Adulterated

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU, INSPECTOR.

April	24	Olive Oil..	38923	A. C. Trempe, Sorel .	1 pt...	50	L. A. Price, Lucca, Nice, Bordeaux.	.....	.....	1·4699	. . .	Green..	.....	38923	Genuine.
"	25	" ..	38924	A. E. D'Artois & fils, Farnham.	1 " ..	45	Adolphe Puget, Marseilles.	.....	.....	1·4705	.....	" ..	.....	38924	"
"	26	" ..	38925	L. Marceau, St. Jean .	1 " ..	60	F. Bertolli, Lucca, Italie.	.....	.....	1·4704	.....	" ..	.....	38925	"
"	27	" ..	38926	N. Mitchell & Co., Granby.	3 bots.	75	.....	Crosse & Blackwell.	.....	1·4701	.....	" ..	.....	38926	"
May	2	" ..	38927	J. O. Montplaiser, Drummondville.	1 can.	5	A. Puget, Marseilles	.....	.....	1·4701	.....	" ..	.....	38927	"
"	2	" ..	38928	Robinson & Tenny, Waterloo.	3 bots.	7	.....	Crosse & Blackwell.	.....	1·4699	.....	" ..	.....	38928	"
"	4	" ..	38929	A. H. Moore & Co., Magog.	3 " .	7	.....	Nat. Drug & Chem. Co., Ltd., Montreal.	Na-Dru-Co. brand.	1·4701	.....	" ..	.....	38929	"
"	5	" ..	38930	V. Archambault, E. Sherbrooke.	3 " .	75	.....	Holbrock & Co., Nice.	.....	1·4699	....	" .	.....	38930	"
"	8	" ..	38931	La Cie S. Bourgeois Inc., St. Hyacinthe.	1 qt..	80	Talbot & frere, Bordeaux, France.	.....	.....	1·4704	...	" ..	.....	38931	"
"	10	" ..	38932	Denault & frères, Asbestos.	3 bots.	1 35	H. Etienne Boville, Marseilles.	.....	.....	1·4701	.....	" ..	.....	38932	"

DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.

Mar.	27	Olive Oil..	40621	Sylvio Choquet, 153 Amherst st., Montreal	1 pt..	50	.....	.....	Hudon, Hébert & Cie, Ltd., Montreal.	.....	1·4702	.....	Green..	....	40621	Genuine.
"	27	" ..	40622	H. R. Gray, 198 St. Lawrence B., Montreal.	1 " ..	75	.....	.....	.....	.....	1·4701	.....	" ..	.....	40622	"

BULLETIN No. 229—OLIVE OIL.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor: Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the Vendor: Furnisher.	Inspector's Report. (Is not an expression of Opinion).	Results of Analysis. Refractive index at 15·5c.	Results of Analysis. Iodine number.	Results of Analysis. Nitric Acid Colour test.	Results of Analysis. Halphen's Colour test.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR—*Concluded.*														
1911.														
Mar. 27	Olive Oil..	40623	J. Pigeon, 412 Notre Dame W., Montreal.	1 pt..	50	....	....	....	1·4709	....	Gr ..	....	40623	Genuine.
April 13	" ..	40624	H. E. Archambault, 78 Notre Dame E., Montreal.	1 " ..	50	....	....	Imported.....	1·4700	....	" ..	....	40624	"
" 17	" ..	40625	Chas. Lippen, 427 Wellington st., Montreal	1 " ..	70	....	....	....	1·4740	104	Brown..	Red..	40625	Adulterated
" 19	" ..	40626	G. W. Porcheron, 1024 St. Lawrence B., Montreal.	1 " ..	40	....	....	....	1·4701	....	Green..	....	40626	Genuine.
" 19	" ..	40627	Louis Wemfeld, 1112 St. Lawrence B., Montreal.	1 " ..	75	....	Laporte-Martin Cie, Ltd.	....	1·4697	....	" ..	..	40627	"
" 19	" ..	40628	Dr. Leduc et Cie, 1181 St. Lawrence B., Montreal.	1 " .	60	....	....	....	1·4702	....	" ..	....	40628	"
" 19	" ..	40629	Dr. Prevost, 662 St. Denis st., Montreal.	1 " ..	75	....	....	....	1·4699	....	" ..	....	40629	"
" 19	" ..	40630	J. E. Migeron, 540 St. Denis st., Montreal.	1 " .	50	....	....	....	1·4705	..	" ..	..	40630	"
DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.														
Mar. 31	Olive Oil..	43221	D. J. Stalker, druggist, Ottawa.	16 oz.	50	Nat. Drug & Chem Co. Ltd., Ottawa	Manufacturers ..	Tin labelled guaranteed absolutely pure.	1·4707	....	Green.	....	43221	Genuine.
" 31	" ..	43222	T. Payment, druggist, Ottawa.	18 "	75	A. Guiot & Cie, France.	Ottawa Drug Co., Ottawa.	....	1·4707	....	" .	....	43222	"

"	31	" ..	43223	Beattie & Argue, druggists, Ottawa.	18 "	75	A. Guiot & Cie, France.	T. Chamberlain & Co., Prescott.	....	1·4725	103	Brown..	Red.	43223	Adulterated
April	1	" ..	43224	Allen & Cochrane, druggists, Ottawa.	20 "	90	Gaillard	.....	Imported by vendors.	1·4704	...	Brown..	....	43224	Genuine.
"	1	" ..	43225	N. W. Campbell, druggist, Ottawa.	18 "	75	A. Guiot & Cie, France.	Ottawa Drug Co., Ottawa.	.....	1·4724	97	Brown..	Red.	43225	Adulterated
"	3	" ..	43226	O. C. Abbott, druggist, Smith Falls.	18 "	75	F. Bertolli, Lucca, Tuscany, Italy.	Drug Trading Co., Toronto.	Guaranteed absolutely pure.	1·4703	.....	Green ..	.....	43226	Genuine.
"	3	" .	43227	The A. B. Scott & Co., Smith Falls.	3 bots.	75	Liptons, Ltd., London, Eng.	Robertson Nicolle & Co., Smith Falls.	.....	1·4699	.....	" ..	....	43227	"
"	5	" ..	43228	C. A. Ramshaw, druggist, Arnprior.	3 "	75	Nat. Drug & Chem. Co.	Manufacturers..	.....	1·4704	.....	" ..	.....	43228	"
"	5	" ..	43229	J. Chambers, druggist, Arnprior.	18 oz.	75	Nat. Drug & Chem. Co.	" ..	Labelled absolutely pure.	1·4703	.....	" ..	.....	43229	"
"	7	" ..	43230	C. Whitney & Son, Prescott.	3 bots.	75	H. E. Boulle, Marseilles, France.	Laporte Martin & Cie, Montreal.	Minerva Brand, guaranteed pure	1·4699	.....	" ..	....	43230	"

DISTRICT OF KINGSTON—JAS. HOGAN, INSPECTOR.

Mar.	24	Olive Oil.	47756	T. Hoag, Kingston....	1 pt.	50	.....	N. C. Polson, Kingston.	.....	1·4697	.....	Green ..	..	47756	Genuine.
"	24	" ..	47757	C. S. Prouse, Kingston	1 "	60	.....	N. C. Polson, Kingston.	.....	1·4699	.....	" ..	.....	47757	"
"	24	" ..	47758	A. P. Chown, Kingston	1 "	60	.....	Lymans, Ltd., Montreal.	.....	1·4730	99	Brown..	Red..	47758	Adulterated
"	24	" ..	47759	W. W. Gibson, Kingston.	1 "	60	.....	N. C. Polson, Kingston.	... .	1·4699	.....	Green ..	.....	47759	Genuine.
"	24	" ..	47760	N. C. Polson, Kingston	1 "	50	Sociétée des Huiles d'Olive de Nice, France.	.....	.. ..	1·4704	.....	" ..	.....	47760	"
"	27	" ..	47761	J. S. McKeown, Belleville.	1 "	50	.....	Lymans, Ltd., Montreal.	.....	1·4725	110	Brown.	No colour	47761	Adulterated
"	27	" ..	47762	D. M. Waters, Belleville.	1 "	60	.....	Lymans, Ltd., Montreal.	.....	1·4725	97	" ..	Red..	47762	"
"	28	" ..	47763	McDermid & Jury, Peterboro.	1 "	75	.....	N. C. Polson, Kingston.	.....	1·4699	.....	Green ..	.....	47763	Genuine.
"	28	" ..	47764	Warne Drug Co., Peterboro.	1 "	75	Sociétée des Huiles d'Olive de Nice, France.	.....	.....	1·4701	.....	" ..	.....	47764	"
"	28	" ..	47765	Geo. Watson, Port Hope.	1 "	75	.....	Nat. Drug Co., Toronto.	.....	1·4704	....	" ..	.....	47765	"

BULLETIN No. 229—OLIVE OIL.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of Opinion).	Results of Analysis. Refractive index at 15·5c.	Results of Analysis. Iodine number.	Results of Analysis. Nitric Acid, Colour test.	Results of Analysis. Halphen's Colour test.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.														
1911.														
April 5	Olive Oil	47275	T. J. Mundy, Penetang	1 pt.	60	.....	Drug Trading Co., Toronto.	Sold as pure olive oil.	1·4706	....	Green	.....	47275	Genuine.
" 6	"	47276	J. A. Breens, Pharmacy, 216 Queen st. E., Toronto.	1 "	40	.....	Lyman Bros. & Co., Ltd., Toronto.	Olio D'Oliva: fine.	1·4723	97	Brown	Red	47276	Adulterated
" 6	"	47277	G. Lamblyn, Ltd., Yonge st., Toronto.	1 "	40	.....	A. Jeffrey, Toronto.	Superfine olive oil, F. Bretolli	1·4699	.....	Geen	....	47277	Genuine.
" 6	"	47278	S. T. Hopper, College st., Toronto.	1 "	50	.....	Holbrook's, Ltd., Toronto.	.....	1·4701	..	"	.....	47278	"
" 7	"	47279	F. W. McLean, Queen st., Toronto.	1 "	60	.....	The Drug Trading Co., Ltd, Toronto.	Labelled pure olive oil.	1·4705	.....	.....	.....	47279	"
" 7	"	47280	G. E. Gibbard, 1871 Dundas st., Toronto.	1 "	70	.....	Vendor	Labelled olive oil G. E. Gibbard, dispensing chemist.	1·4701	..	"	....	47280	"
" 7	"	47281	A. C. Thompson, 890 Dundas st., Toronto.	1 "	50	.....	Saunders & Evans, Toronto	Best quality olive oil.	1·4706	.....	"	.....	47281	"
" 10	"	47297	J. D. Morrison, Bay st., Hamilton.	1 "	40	.....	The Drug Trading Co., Ltd., Toronto.	Cream Lucca oil, guaranteed pure.	1·4702	...	"	.....	47297	"
" 10	"	47298	A. E. Drewery, Jas. st., Hamilton.	1 "	50	.....	Unknown.....	.....	1·4703	....	"	.....	47298	"
" 10	"	47299	Hawkins, Ltd., 117 John st. South, Hamilton.	1 "	40	.....	Nat. Drug & Chem. Co., Ltd., Hamilton.	Labelled pure olive oil.	1·4702	....	"	...	47299	"

DISTRICT OF LONDON—JNO. TALBOT, ACTING INSPECTOR.

April	25	Olive Oil..	48001	Alex. Stewart, Guelph.	3 bots.	75	.....	Nat. Drug Co., Hamilton.	.....	1·4706	...	Green..	.....	48001	Genuine.
"	25	" .	48003	J. B. Broadfoot, Guelph	3 " .	75	.....	Drug Trading Co., Toronto.	Sample from original pkge. labelled F. Bertolli, Lucca, Tuscany.	1·4699	.....	" ..	.....	48003	"
"	26	" .	48009	E. O. Ritz & Co., Berlin	3 " .	75	.....	Holbrook & Co., London, Eng.	Labelled pure olive oil, prepared at Nice, France.	1·4697	.....	" ..	.....	48009	"
"	25	" ..	48011	J. H. Schmidt, Berlin.	3 " .	75	Unknown.....	Unknown. ...	Labelled Martini & Co., Lucca, Italy.	1·4702	..	" ..	.....	48011	"
"	26	" ..	48020	Fred C. Bond, Galt....	3 " .	65	.....	Lyman Bros., Toronto.	.....	1·4697	...	" ..	..	48020	"
"	26	" ..	48022	A. M Edwards, Galt .	3 " .	45	.....	Martini & Co., Lucca, Italy.	.....	1·4702	..	" ..	...	48022	"
"	27	" ..	48028	L. H. Cant, Galt.....	3 " .	50	.....	Nat. Drug Co., Hamilton.	.....	1· 7	.....	"	..	48028	"
"	25	" ..	48397	A. B. Petrie, Guelph..	3 " .	75	.....	Lyman Bros., Toronto.	.....	1·4730	103	Brown..	Red..	48397	Adulterated
"	25	" ..	48400	W. H. Beattie, Guelph	3 " .	60	.....	.....	.....	1·4702	.....	Green..	.....	48400	Genuine.

DISTRICT OF WINDSOR—JNO. TALBOT, INSPECTOR.

April	19	Olive Oil..	48357	W. T. Rapley, Strathroy.	3 bots.	50	.....	Nat. Drug Co., London.	Labelled Na-Dru-Co. Olive Oil.	1·4699	....	Green. .	.....	48357	Genuine.
"	19	" .	48359	W. H. Stepler, Strathroy.	3 "	50	.....	W. T. Polson, Toronto.	.....	1·4699	.....	" ..	.....	48359	"
"	20	" ..	48362	H. E. Perrott, Brantford.	3 "	60	.....	R. S. McIndoe, Toronto.	.....	1·4697	.....	" ..	.....	48362	"
"	20	" ..	48365	R. M. Roddick, Brantford.	3 "	60	.....	Nat. Drug Co. .	Labelled Na-Dru-Co. Olive Oil.	1·4702	... ..	" ..	....	48365	"
"	20	" ..	48369	M. H. Robertson, Brantford.	3 "	75	J. B. & A. Artand, Marseille, France	.....	.....	1·4697	.....	" ..	.....	48369	"
"	20	" ..	48370	P. Cancello, Brantford.	3 "	85	Specuzza and Sansone, Italy.	.....	.....	1·4701	.....	" ..	.....	48370	"
"	21	" ..	48374	F. G. Walley, Ingersoll.	3 "	65	.....	E. G. West, Toronto.	.....	1·4740	109	Brown .	Red. .	48374	Adulterated
"	21	" ..	48379	J. E. Gayfer, Ingersoll	3 "	90	.....	Drug Trading Co., Toronto.	..... Labelled Superfine Olive Oil. F. Bertalli Lucca Tuscany.	1·4699	.....	Green ..	.....	48379	Genuine.

BULLETIN No. 229—OLIVE OIL.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the the Vendor. Furnisher.	Inspector's Report. (Is not an expression of Opinion.)	Results of Analysis. Refractive index at 15·5c.	Results of Analysis. Iodine number.	Results of Analysis. Nitric Acid Colour test.	Results of Analysis. Halphen's Colour test.	No. of Sample.	Remarks, and Opinion of the Chief Analyst.
DISTRICT OF WINDSOR—JNO. TALBOT, INSPECTOR—*Concluded.*														
1911.														
April 21	Olive Oil..	48380	A. Marello, Ingersoll..	3 bots.	70	.....	Cattelano, London, Ont.		1·4695	.....	Green ..	.....	48380	Genuine.
" 21	" ..	48383	D. Carmello, Ingersoll.	3 "	75	Unknown.....	Unknown.....	.....	1·4692	.....	" ..	.....	48383	"
DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.														
April 12	Olive Oil..	43583	McCullough's Drug Store, Winnipeg.	3 bots.	1.20	.....	.....	Virgin Olive Oil *Beaumardrand Brand.*	1·4705	..	Green.	....	43583	Genuine.
" 12	" ..	43584	The Gordon Mitchell Drug Co., Winnipeg.	1 pt..	75	Vendors	.....	Salon Olive Oil.	1·4701	..	" .	....	43584	"
" 12	" .	43585	F. Braund, Winnipeg	1 "	75	Societé des Huiles d'Olive, de Nice.	N. C. Polson, Kingston.	Huiled Olive *Vierge Extra.*	1·4699	.....	" .	.....	43585	"
" 12	" ..	43586	Austins Drug Store, Winnipeg.	1 "	75	"	.....	Surfine Extra.	1·4699	..	" ..	.	43586	"
" 12	"	43587	The Clarendon Pharmacy, Winnipeg.	1 "	75	Nat. Drug & Chem. Co. of Canada, Ltd.	Manufacturers.	Na-Dru Co. Olive Oil.	1·4704	.....	" ..	.	43587	"
" 12	" ..	43588	H. D. Campbell, Winnipeg.	1 "	1.00	Societé des Huiles d'Olive, de Nice.	N. C. Polson, Kingston.	Surfine Extra...	1·4699	...	" ..	.....	43588	"
" 12	" ..	43589	Rogers Drug Store, Winnipeg.	1 "	80	A. Guiot & Cie, aix en Provence.	.....	Huile d'Olive *lera special.*	1·4730	102	Brown..	Red..	43589	Adulterated
" 12	" ..	43590	" "	1 "	80	" "	.....	Extra fine quality.	1·4710	...	Green..	.....	43590	Genuine.
" 13	" ..	43591	Connell & Co., Winnipeg.	1 qt..	1.25	Meyer Bros. Drug Co., St. Louis, U.S	.....	Maltese Cross *Virgin Olive Oil*	1·4704	.....	" .	.....	43591	"
" 13	" ..	43592	Poyntz & Co., Winnipeg.	1 pt..	75	A. Guiot & Cie, aix en Provence.	.....	Qualitic Vierge de aix.	1·4699		" ..	.....	43592	"

DISTRICT OF CALGARY—R. W. FLETCHER, INSPECTOR.

1911.																
May	3	Olive Oil.	43822	J. H. Morris & Co., Edmonton.	1 pt.	40	E. Lazenby & Sons, Ltd., London, Eng.	.....	.....	1·4701	...	Green..	.....	43822	Genuine.
"	3	Olive Oil..	43823	Hallier & Aldridge, Edmonton.	3 bots.	90	Crosse & Blackwell, London, Eng.	.....	.....	1·4701	...	Green....		43823	Genuine
"	3	" ..	43824	Acme Co., Ltd., Edmonton.	3 "	1 35	Bret fils & Bavral, Salona, Provence, France.	.....	.....	1·4699	...	"		43824	"
"	3	" ..	43825	Hudson's Bay Co., Edmonton.	3 "	1 00	.....	.....	Huile d'Olive, Bordeaux.	1·4704	.....	" ...	.....	43825	"
"	3	" ..	43826	Capital Mercantile Co., Edmonton.	3 "	1 50	H. J. Heinz & Co., Pittsburg, Pa.	.....	.....	1·4707	....	" ...	.....	43826	"
"	9	" ..	43827	C. A. Wallace, Calgary.	3 "	75	Lyman Bros. Co., Toronto.	.....	.....	1·4704	....	" ...	.....	43827	"
"	9	" ..	43828	Nat. Drug. & Chem. Co., Ltd., Calgary.	3 "	75	.....	Vendors.....	.....	1·4701	.....	" ...	.....	43828	"
"	9	" ..	43829	L. T. Mewburn, & Co., Ltd., Calgary.	3 "	45	.....	Crosse & Blackwell, London.	.....	1·4701	.....	" ...	.....	43829	"
"	10	" ..	43830	Georgeson & Co. Ltd., Calgary.	3 "	75	Beaumarchand, Nice, France.	.....	.....	1·4701	....	" ...	.....	43830	"
"	10	" ..	43831	Campbell, Wilson & Horne, Calgary.	3 "	75	.....	Halbrook & Co., Birmingham.	.....	1·4704	.....	" ...	..	43831	"
"	10	" ..	43847	G. F. & J. Galt, Calgary.	3 "	75	Bret fils Aine & Bavral, Salona en Prov. France.	.....	.....	1·4699	.....	" ...	.....	43847	"

DISTRICT OF NELSON—THOS. PARKER, INSPECTOR.

May	3	Olive Oil.	48405	A. McDonald Co., Nelson, B.C.	3 bots.	60	Jno. Vittucci.....	.....	.....	1·4699	.....	Green..	.....	48405	Genuine.
	3	" ..	48406	A. McDonald Co., Nelson.	3 "	58	Crosse & Blackwell, England.	.....	.....	1·4700	...	" ...	.....	48406	"

DISTRICT OF VANCOUVER—J. F. POWER, INSPECTOR.

April 25	Olive Oil	38165	Independant Drug Store, Main St. Vancouver, B.C.	3 bots.	75	.....	Fraser & Dick Vancouver.	.....	1·4699	....	Green..	...	38165	Genuine.

BULLETIN No. 229—OLIVE OIL

DISTRICT OF VANCOUVER—J. F. POWER, INSPECTOR.—*Concluded.*

Date of Collection.	Name of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)	Results of Analyses. Refractive index at 15·5 c.	Results of Analyses. Iodine number.	Results of Analyses. Nitric Acid Colour test.	Results of Analyses. Halphen's Colour test.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
1911.														
April 25	Olive Oil.	38166	Mount Pleasant Pharmacy, Main St., Vancouver.	3 bots.	45	...	J. A. Tepoorten, Vancouver.	...	1·4699	...	...	...	38166	Genuine.
" 25	"	38167	Broadway Pharmacy, Granville St., Vancouver.	3 "	50	A. Guiot, France	...	...	1·4701	...	"	...	38167	
" 25	"	38168	Harrison's Drug Store, Granville St., Vancouver.	3 "	75	Canepa & Soci, Genoa, Italy.	...	...	1·4997	...	"	...	38168	
" 25	"	38169	Ferguson's Drug Store, Granville St., Vancouver.	3 "	75	J. Vitucci & Co., Italy.	...	...	1·4707	...	Green	...	38169	"
" 26	"	38170	Woods Pharmacy, Hastings St., Vancouver	3 "	1·05	Unknown	...	...	1·4701	...	"	...	38170	"
" 26	"	38171	E. S. Knowlton, Hastings St., Vancouver.	3 "	75	...	W. P. Morris & Co.	...	1·4699	...	"	...	38171	"
" 26	"	38172	Central Drug Store, Cordova St., Vancouver.	3 "	1·05	J. La Tour & Cie, France.	...	...	1·4707	...	"	...	38172	"
" 26	"	38173	A. & C. Grocery, Granville St., Vancouver.	3 "	75	Crosse & Blackwell, London, Eng.	...	...	1·4699	...	"	...	38173	"
" 27	"	38174	J. F. May, Granville St., Vancouver.	"	90	Schroder & Schyler, Bordeaux, France	...	...	1·4701	...	"	...	38174	"

DISTRICT OF VICTORIA—D. O'SULLIVAN, INSPECTOR.

May	5	Olive Oil.	47565	Windsor Grocery Co., Victoria, B.C.	1 pt.	90	American Olive Co. Los Angeles, Cal.	.....	Pure olive oil...	1·4699	....	Green ..	...	47565	Genuine.
"	5	" ..	47566	D. H. Ross & Co., Victoria, B.C.	1 "	65	Jas. Plagnol, France.	.....	Virgin olive oil.	1·4700	...	" ..	..	47566	"
"	5	" ..	47567	" "	1 "	50	Fratelli Alphonso, Lucca, Italy.	.....	Olis d'Oliva Soprafino.	1·4700	.....	" .	...	47567	"
"	5	" ..	47568	" "	1 "	85	J. E. Kubras, Redlands, Cal.	.....	Bohemian Club Brand.	1·4704	.....	" ...	.....	47568	"
"	5	" ..	47569	" "	1 "	50	Crosse & Blackwell, London, Eng.	.....	Pure Lucca oil..	1·4704	.....	" ...	.....	47569	"
"	5	" ..	47570	West End Grocery Co., Ltd., Victoria, B.C.	1 "	65	.....	Meyer & Laing, New York.	Olio Soprafino Extra.	1·4703	.....	" ...	.....	47570	"
"	5	" ..	47571	" "	1 "	65	.....	R. P. Rithet & Co., Victoria, B.C.	Huille d'Olive Surfine Extra.	1·4699	...	" ...	.....	47571	"
"	11	" ..	47572	Harrison & McDonald, Ltd., Victoria, B.C.	1 "	50	.....	John Vittucci, Vancouver.	Map of Italy pure olive oil.	1·4704	.....	" ...	.....	47572	"
"	11	" ..	47573	Copas & Young, Victoria, B.C.	1 "	65	.....	Nicelle Olive Oil Co., New York	Nicelle olive oil.	1·4699	...	" ...	.....	47573	"
"	11	" ..	47574	H. O. Kirkham, Victoria, B.C.	1 "	50	.....	Holbrook & Co., London, Eng.	Guaranteed pure olive oil.	1·4703	.....	" ...	.....	47574	"

APPENDIX F.

BULLETIN No. 230—HEADACHE POWDERS.

OTTAWA, December 6, 1911.

W. J. GERALD, Esq.,

Deputy Minister of Inland Revenue.

SIR,—I beg to submit herewith a report upon one hundred and fifty (150) samples of patent or proprietary medicines, purchased throughout the Dominion as Headache Powders, in April of this year. Each sample has been worked in duplicate, using two of the dozen powders usually supplied in a package. The report therefore represents three hundred (300) distinct analyses.

In most cases the duplicates are very similar, as regards the content of the potent drug; indicating thereby care in their preparation. In a few instances, the duplicate powders show considerable variation in the amount of the potent drug contained.

The last collection of articles of this kind was made in June, 1905, and the results of their examination are contained in Bulletin No. 113. At that time thirty samples (30) were examined, and all but two (2) were found to contain acetanilide (Antifebrin) as the effective component. This drug continues to find the greatest vogue in these powders, and is found in one hundred and eighteen samples (118) of the present collection: in a few cases associated with phenacetin, but usually alone, as the effective component of the powder. Phenacetin is present, as chief ingredient, in twenty-four samples, (24) while eight (8) samples contain aspirin (acetosalicylic acid) a drug which is not scheduled by the Proprietary or Patent Medicine Act.

The drugs chiefly used in these powders are known to the medical profession, to pharmacy and to chemistry by other names than those by which they are known to the public. Acetanilide and Antifebrin are the popular names of the first named drug; but phenylacetamide and acetyl-amidobenzene are technical synonyms. Phenacetin is also known as para-acetphenetidin or para-oxyethylacetanilide. When declaration of the presence of a drug is made on the label as required by Section 7 of the Proprietary or Patent Medicine Act, this is for the purpose of informing the public, and it is reasonable to expect that the common name of the drug should be used. To employ a synonym of technical import only, is as effectively to disguise the presence of the drug

as the omission of the name altogether for most people. I would suggest that a departmental ruling be made so as to make compulsory the employment on the label of the commonly accepted names of drugs. I would also draw attention to the fact that the statement of the presence of accetanilide is often included in a considerable mass of reading matter, so that it requires some care and time to ascertain if present or not. I think that the name of the potent drug should be prominently indicated.

Section 7 of the Proprietary or Patent Medicine Act requires that declaration of the presence of either acetanilide or of phenacetin should be made on the label unless an affidavit has been filed specifying the amount of such drug present, and limiting this amount to a maximum which shall satisfy the Minister of Inland Revenue of the harmlessness to health of such maximum. The medical advisers of the Hon. the Minister have fixed this amount at 2 grains for acetanilide and 5 grains for phenacetin. In none of the powders containing phenacetin does the amount present exceed 5 grains.

Of powders in which acetanilide is the chief ingredient, sixty-two (62) declare the presence of the drug, and are therefore within the protection of the Act, even though the amount contained is higher than the limit (2 grains) considered safe by our medical advisers. Twenty-seven (27) samples do not declare the presence of the drug, and do not contain any notable excess of it. Eleven (11) samples contain notable excess, without statement of the fact of its presence, but are protected by having a stamp upon them, being thus designated as old stock, and not amenable to the penalties of the Act, if properly stamped. (Circular G. 843). Fifteen (15) samples contain the scheduled drug in excess, without having any declaration of its presence upon the label, and without being stamped and are therefore amenable to the penalties fixed by Section 12 of the Proprietary or Patent Medicine Act.

Eighty-eight (88) samples of the one hundred and fifty (150) herein reported, make distinct claim to curative powers. In most cases these claims cover headache, neuralgia, nausea, insomnia and many other ills; sometimes the claim is strengthened by addition, of such words as "Sure," "Certain," "Instantaneous," &c. All such claims are unwarranted, and are misleading. They constitute misdescription or misbranding; and this should be made a punishable offence under the Act.

ACETANILIDE POWDERS.

In twenty-seven (27) samples containing this drug without declaration of its presence and judged as meeting the claims of the Proprietary or Patent Medicine Act, inasmuch as the permitted amount of two (2) grains is not materially exceeded, the actual mean content of acetanilide in each powder is 2·03 grains.

Of sixty-two (62) samples containing acetanlide, with notification of this fact on the label, the actual mean amount of the drug in each powder is 4·1 grains; being above 5 grains in 19 samples, and above 6 grains in 9 samples.

That the Proprietary or Patent Medicine Act has caused greater care to be taken in dispensing of this dangerous drug may be inferred from the record of seven samples of old stock; that is stock in possession of the retail dealer at the time the Act came into force, and permitted to be sold if stamped in such a way as to show that they are not subject to the control of the Act.

The samples referred to are as follows:—

	Powder No. 1.	Powder No. 2.
No. 46014	5·1	5·5
" 46018	6·4	6·1
" 36392	4·9	4·3
" 47254	4·2	4·9
" 48023	5·1	5·5
" 43582	5·9	6·4
" 47257	4·4	4·1
Mean	5·1	5·2

This appears to indicate that before the passage of the Act, headache powders were freely sold, containing an average amount of 5 grains of acetanilide, without statement of the presence of the drug, or any hint of the quantity present.

Fifteen (15) samples contain more than 2 grains of acetanilide without declaration of the presence of the drug, and without a stamp to show them to be stock held prior to the passage of the Proprietary or Patent Medicine Act. The vendors of these samples are amenable to the penalties fixed by Section 12 of the Act.

I subjoin a list of the samples just referred to.

Number.	Acetanilide. (1)	Acetanilide. (2)	Mean.	Excess. Over 2 Grains.
36396	4·9	5·0	4·95	2·95 grains.
36397	3·7	4·6	4·15	2·15 "
36399	4·1	3·6	3·85	1·85 "
38901	3·7	4·3	4·00	2·00 "
38909	4·8	4·6	4·70	2·70 "
40631	3·7	3·5	3·60	1·60 "
40633	2·3	2·3	2·30	Phenacetin also present.
43202	5·5	6·1	5·80	3·80 grains.
43208	5·5	6·2	5·85	3·85 "
47751	3·8	—	3·80	1·80 "
47252	4·0	—	4·00	Phenacetin also present.
48358	5·4	4·8	5·10	3·10 grains.
47256	4·5	5·4	4·95	2·95 "
47261	6·6	5·9	6·25	4·25 "
38140	3·5	3·3	3·40	1·40 "

In one or two cases I have found these headache preparations to be put up in the form of lozenges or chocolates. This appears to me to be a dangerous innovation. A

drug so potent as a heart depressant as acetanilide or phenacetin should not be disguised in lozenge form. It is sufficiently dangerous to warrant every precaution against excessive use.

I beg to recommend the publication of this report as Bulletin No. 230.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Description as found on the label.
								DISTRICT OF NOVA SCOTIA—
1911.								
April 18	Headache Wafers.	42276	J. D. Clark, Kentville, N.S.	1 box.	25	N. D. & C. Co., Halifax, N.S.	Manufacturers.	Na-Dru-Co. Headache Wafers. National Drug and Chemical Co. of Canada, Ltd. They contain no morphine, opium or other poisonous drugs. No. 591 The Proprietory or Patent Medicine Act.
" 20	Headache Powders	42277	J. A. Craig, Yarmouth, N.S.	3 pkg.	30	F. G. Wheaton & Co., Ltd., Folly Village, N.S.	" ..	"Kumfort" Headache Powders give prompt relief in headache, neuralgia or pain attending La Grippe. These powders contain acetanilide, mfg. by F. G. Wheaton Co., Ltd., No. 123 Proprietary or Patent Medicine Act. 4 Doses. Price 10 cents.
20	" ..	42278	B. F. Trask, Yarmouth, N.S.	1 box.	25	Toronto Pharmacal Co., Toronto, Ont.	" ..	Trask's Headache Powders. B. F. Trask, Druggist, Yarmouth, N. S. 1051 Proprietary or Patent Medicine Act. These headache powders are an instantaneous cure for sick or nervous, headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits.
24	Headache Wafers.	42279	Nat. Drug & Chem. Co., Halifax, N.S.	3 " .	25	Vendors	.....	Description like 42276.
24	Headache Powders	42280	Brown Bros. & Co., Halifax, N.S.	3 " ..	30	F. G. Wheaton & Co., Amherst, N.S.	Manufacturers.	Description like 42277.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.							
Soak the wafer in water until soft, then place in the mouth and swallow with drink of water. The dose may be repeated in half an hour if necessary. For rheumatic pains. Take one wafer three times a day.	Powder No. 1. . . . " " 2.....	5·3 6·7	None.	None.	None	42276	Apparently contains aspirin (aceto-salicylic acid). Meets requirements of P. or P. Act.
Directions.—Children under 10 years give ⅓ of a powder; ten to fifteen years, ½ a powder. For adults, one powder, repeated in half an hour if needed. Place powder on the tongue and take a swallow of water.	Powder No. 1..... " " 2.....	8·6 6·3	3·3 2·2	"	" ..	42277	Acetanilide declared. Meets requirements of P. or P. Act.
Directions.—Take one powder dry on the tongue or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible, do not repeat needlessly.	Powder No. 1..... " 2.....	8 5 8·5	1·7 1·7	....	....	42278	Claim curative effects; otherwise meets requirements of P. or P. Act.
....	Powder No. 1 ..... " " 2..... ..	4·7 5·6	None. " ..	None. " ..	....	42279	Apparently contains aspirin (aceto-salicylic acid) meets requirements of P. or P. Act.
....	Powder No. 1..... " " 2.....	5·1 5·9	1·9 2·3	"	None.	42280	Meets of requirements of P. or P. Act. Acetanilide declared.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF NOVA SCOTIA—
1911.								
April 25	Headache Powders	42281	J. Rawley, Halifax, N.S.	3 pkg.	30	T. Milburn & Co., Toronto, Ont.	N. D. & C. Co., Halifax, N.S.	Milburn Sterling Headache Powders Cure. Nervous sick and bilious headaches, cold in the head, neuralgia, etc. They are absolutely harmless in their action and leave no unpleasant after effect. The T. Milburn Co., Ltd., Toronto. Each powder contains 5·866 grains of acetanilide. No. 71 The Proprietary or Patent Medicine Act.
" 25	" ..	42282	C. E. Huggins, 3 Halifax, N.S.	..	30	Toronto Pharmacal Co., Toronto.	Manufacturers.	Perfect Headache Powders, (St. Andrews Drug Store), C. E. Huggins, Halifax, N.S. No. 1442 The Proprietary or Patent Medicine Act. These headache powders are an instantaneous cure for sick and nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits.
" 25	" .	42283	M. D. Logan, 3 Halifax, N.S.		30	T. Milburn & Co., Toronto.	N. D. & Co., Halifax, N.S.	Described like No. 42281.
" 25	Headache Wafers	42284	A. A. Thompson, 1 box. Halifax, N.S.		25	Zymole Co., New York.	Manufacturers.	S. H. A. C. Stearns' Headache Cure. Each wafer contains one grain of caffein alkaloid and three grains of pure acetanilide, intimately mixed. A speedy relief for headaches of all origin whether sick, bilious, nervous or hysterical, also a great re-

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide—Antifebrin, grains.	Phenacetin, grains.	Phenazone=Antipyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR—*Continued.*							
Directions.—For children from 5 to 10 years ¼ to ⅓ of a powder, 10 to 15 years ½ to ⅔ of a powder, according to age. Adults, 1 powder. Place the powder on the tongue and take a swallow of water, or the powder may be dissolved in a little water before taking. If necessary repeat the dose in 30 minutes.	Powder No. 1.....	14·3	6·2	....	.....	42281	Claim curative properties. Presence of acetanilide declared. The amount is excessive in the opinion of medical advisers of the Department. Meets requirements of P. or P. Act.
	" " 2.....	13·9	6·1	.....	.....		
Directions—Take one powder dry on the tongue, or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1.....	11·0	1·9	...	.....	42282	Claims curative properties. Meets requirements of P. or P. Act.
	" " 2.....	9·5	1·7				
.....	Powder No. 1.....	15·3	6·5	.....	...	42283	See remarks under 42281. Meets requirements of P. or P. Act acetanilide declared.
	" " 2.....	13·8	5·9				
Directions.—Place one wafer (the regular adult dose) in a glass of water until thoroughly softened and swallow it with a drink of water. If at the end of an hour relief is not obtained, another wafer may be taken, but not more than two wafers should be taken in succession. The wafer should be	The following is printed on a circular enclosed in the box, S. H. A. C. Stearns Headache Cure Headaches of all kinds yield quickly to Stearns' Headache Cure. The same is true of allied pains such as neuralgia, la grippe, sciatica, rheumatism, lum-	8·2	3·7	.....	.....	42284	Called a *cure*. Acetanilide in slight excess of amount declared on label. Meets requirements of P. or P. Act.
		7·1	3·3				

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF NOVA SCOTIA—
1911. April 25								lief in neuralgia. These wafers contain no injurious narcotics and are warranted, free from antipyrine, morphine, chloral or opium. The Zymole Co. Inc., New York City.
" 26	Headache Powders	42285	G. A. Burbidge, Halifax, N.S.	3 pkg.	30	Toronto Pharmacal Co., Toronto.	Manufacturers.	Perfect Headache Powders No. 95 Proprietary or Patent Medicine Act. These headache powders are instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain sleeplessness, worry and anxiety, and all forms of depression of spirits.
								DISTRICT OF PRINCE EDWARD ISLAND—
April 6	Headache Wafers.	46011	Geo. E. Hughes, Charlottetown, P.E.I.	3 pkg.	75	Sterns & Curtis, New York.	.....	S. H. A. C. Stearns' Headache Cure. Stearns & Curtis, New York, is composed solely of pure phenyl—acetamid, theine and lactose, A speedy relief for headaches of all origin, whether sick, bilious, nervous or hysterical; also a great relief in nenralgia. These wafers contain no injurious narcotics, and are warranted free from antipyrine, morphine, chloral or opium. Stamp on.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR—*Concluded.*							
		p. c.	p. c.	p. c.	p. c.		
taken early in the attack.	bago, colds, etc., in which the effect is to reduce the fever, if present, as well as to relieve the pain. In fact Stearns' Headache Cure is a general pain cure and has been found effacacious even in earache, toothache, etc.						
Directions.—Take one powder dry on the tongue or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1.....	10·4	2·1	.....	.....	42285	Claimed as a cure. Meets requirements of P. or P. Act.
	" " 2....	11·2	2·0				
THEO. MOORE, INSPECTOR.							
Directions.—Place one wafer (the regular adult dose) in a glass of water until thoroughly softened and swallow it with a drink of water. If at the end of an hour relief is not obtained another wafer may be taken, but more than two doses should not be taken in succession. The wafer should be taken as early in the attack as possible.	Powder No. 1.....	8·5	3·7	None.	.....	46011	Acetanilide is disguised on the label as phenylacetamide. This is in excess of amount allowed without declaration. Technically meets requirements of P. or P. Act. Claims curative properties.
	" " 2..... The circular enclosed in the box is identical with No. 42284.	8·3	3·5	"			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Addrees of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Description as found on the label.
						DISTRICT OF PRINCE EDWARD ISLAND—		
1911.								
April 8	Headache Wafers.	46012	Gillis & Sons, Charlottetown, P.E.I.	3 pkg.	75	Nat. Drug & Chem. Co. of Canada.	....	Described like No. 42276.
" 8	Headache Powders.	46013	McKinnon Drug Co., Charlottetown, P.E.I.	3 " .	30	United Drug Co., Toronto.	....	Rexall Headache Powders. One ounce of the powder contains 274 grains of acetphenetidin. Each powder contains 5 grains of acetphenetidin. These powders are guaranteed free from antipyrin, opium morphine or chloral. No. 1803 Proprietary or Patent Medicine Act. An immediate relief in neuralgia.
" 10	" .	46014	H. J. Mabon, Souris, P.E.I.	3 " .	60	Vendor.. .	..... .	Mabon's Headache Powders, H. J. Mabon, druggist, Souris, P.E.I. For sick and nervous headache and neuralgia; also a cure in cases of sudden cold with fever. Taken in a little water they will lower the temperature and induce sleep. Stamp on.
" 11	" .	46015	J. C. Ferguson, Souris, P.E.I.	3 " .	75	F. G. Wheaton, Folly Village, N.S.	... .	Described like No. 42277.
" 11	Headache Powders	46016	J. S. Chaisson, Souris, P.E.I.	3 pkg.	30	Frasier & Thoruton Co., Cookshire, P.Q.	.....	Dr. Stanley's Handy Headache Powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Anti-pyrine, grains.	No. of Sample.	Remarks and Opinions of the Chief Analyst.
Continued.							
.....	Powder No. 1.....	4·8	None.	None.	None.	46012	Salicylic acid reaction. Apparently aspirin; meets requirements of P. or P. Act.
	" " 2.....	6·3	" .				
Dose.—One powder dissolved in a little water. For severe headache repeat the dose once after a lapse of twenty minutes.	Powder No. 1... ...	5·5	" .	Less than 5 grains		46013	Meets requirements of P. or P. Act. Phenacetin disguised as acetphenetidin.
	" " 2... ...	5·8	" .				
Directions, for headache, one powder repeated in twenty to thirty minutes if necessary. For neuralgia, rhumatic pains, &c.; one powder every two or three hours as required. For sleeplessness and nervousness, one powder on retiring, to be repeated in one hour if sleep is not produced. For children reduce dose according to age. They may be taken dry, on the tongue, followed by a little water.	Powder No. 1	18·5	5·1	.....	. .. .	46014	Claims curative properties. Contain excess of acetanilide, but are protected by a stamp.
	" " 2.....	19·0	5·5				
.....	Powder No. 1.....	13·9	5·5	.....	. ....	46015	See 42277. Acetanilide in excess of limit set by medical advisers of the department. Acetanilide declared. Conforms to P. or P. Act.
	" " 2.....	12·5	5·1				
Directions.—Take one powder dry on the tongue or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1.....	14·6	2·0	None.	None.	46016	Curative properties claimed. Meets requirements of P. or P. Act.
	" " 2.....	17·0	2·5	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
						DISTRICT OF PRINCE EDWARD ISLAND—		
1911.								exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits. Frasier, Thornton & Co. Cookshire, P. Q., No. 212 Proprietary, or Patent Medicine Act.
April 24	Headache Powder.	46017	Keir & McFadyen, Kensington, P.E.I.	3 pkg.	25	Dr. Keir, Kensington.	.. ..	Keir's Headache Powders. For headache, neuralgia and feverish condition. Each powder contains acetanilide 4½ grains in combination with caffine, sodium, bi-carbonate and aromatics.
" 25	" ..	46018	P. N. Euman, Summerside.	3 " ..	30	Toronto Pharmacal Co., Ltd., Toronto	....	Perfect Headache Powders. The Toronto Pharmacal Co., Ltd., Toronto, Montreal and Winnipeg. These headache powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits. Stamp on.
" 25	" ..	46019	McFadyen & McLellan, Summerside.	3 " .	30	F. G. Wheaton & Co., Folly Village, N.S.	... .	This sample is described like No. 42277.
" 25	" ..	46020	J. G. Jamieson, Charlottetown.	3 " ..	75	T. Milburn & Co., Toronto.	....	This sample is described like No. 42281.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.		
Concluded.							
Dose for headache. One powder, repeated in thirty minutes if necessary. At least three hours should elapse before another dose is taken a seidlitz powder or other mild laxative should be taken with the first dose. Care should be taken in administering to children. Reduce dose according to age. Dose for sleeplessness one powder on retiring the powders may be taken dry on the tongue followed by a little water.	Powder No. 1.....	11·8	4·6	None.	None.	46017	Acetanilide declared to extent of 4½ grains. One powder contains excess. Meets requirements of P. or P. Act.
	" " 2.....	15·3	5·8	" .	" .		
Directions.—Take one powder dry on the tongue, or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1.....	15·8	6·4	None.	None.	46018	Curative powers claimed. Acetanilide in excess; protected by stamp.
	" " 2.....	15·0	6·1	" .	" .		
.....	Powder No. 1.....	3·9	1·6	None.	None.	46019	Meet requirements of P. sor P. Act. Acetanilide declared.
	" " 2.....	4·0	1·6	" .	" .		
.....	Powder No. 1.....	12·4	5·6	None.	None.	46020	Curative properties claimed. Meets requirements of P. or P. Act. Acetanilide declared.
	" " 2.....	12·1	5·4	" .	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Description as found on the label.
						DISTRICT OF NEW BRUNSWICK—		
1911.								
Mar. 27	Headache Powders	45434	Nat. Drug and Chem. Co., Ltd., St. John, N.B.	3 pkg.	30	The T. Milburn Co., Ltd., Toronto.		This sample is described like No. 42281.
" 29	"	45435	Frank E. Porter, St. John, N.B.	3 "	25	Vendor..		Peerless Headache Powders. For headache, neuralgia and feverish conditions. Each powder contains acetanilide(4½ grains) in combination with caffeine, sodium bicarbonate and aromatics. Frank E. Porter, prescription druggist, St. John, N.B.
April 3	"	45436	The Canadian Drug Co., Ltd., St. John, N.B.	3 "	20	F. G. Wheaton Co., Ltd., Amherst, N.S.		This sample is described like No. 42277.
" 10	"	45437	Chas. A. Burchill, Fredericton, N.B	3 "	25	Toronto Pharmacal Co., Ltd., Toronto		This sample is described like No. 46018.
" 11	"	45438	The Baird Co., Ltd., Woodstock, N.B.	3 "		Vendors		Bowman's Nerve and Headache Powders. A harmless and effective remedy for headache, nervousness, sleeplessness, feverishness, colds, &c. Each powder contains 3 grains of acetanilide combined with camphor, monobromate and caffeine citrate. The Baird Co., Ltd. Woodstock, N.B.
" 19	"	45439	Geo. M. Fairweather, Sussex, N.B.	3 "	30	Vendor		Micmac Headache Powders. Proprietary or Patent Medicine Act, 781. Headache or neuralgia relieved in 10 minutes. Prepared only by Geo. M. Fairweather, druggist, Sussex, N.B.

HEADACHE POWDERS.

Direction for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Anti-pyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. C. FERGUSON, INSPECTOR.							
.....	Powder No. 1.....	15·6	6·8	None.	None.	45434	See remarks under 42281. Curative powers claimed. Meets requirements of Act. Acetanilide declared.
	" " 2.....	15·8	6·8	" .	" .		
Dose for headache.—One powder repeated in thirty minutes if necessary. At least three hours should lapse before another dose is taken. A seidlitz powder or other mild laxative should be taken with the first dose. Care should be taken in administering to children. Reduce dose according to age. Dose for sleeplessness, one powder on retiring. The powders may be taken dry on the tongue followed by a little water.	" " 1.....	11·6	4·5	" .	" .	45435	Complies with requirements of P. or P. Act. Acetanilide declared to 4½ grains.
	" " 2.....	11·9	4·5	" .	"		
.....	" " 1.....	3·5	1·3	" .	" .	45436	Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	7·5	3·0	" .	" .		
.....	" " 1.....	10·3	1·9	" .	" .	45437	Curative properties claimed. Meets requirements of P. or P. Act.
	" " 2.....	10·0	1·8	" .	" .		
Directions.—Place a powder on the tongue and swallow with some water; repeat the dose in 20 minutes if not relieved.	" " 1.....	7·6	1·9	" .	" .	45438	Meets requirements of P. or P. Act. Acetanilide declared.
	" " 2.....	5·5	1·7	" .	" .		
Directions.—Place the powder on the tongue and wash down with a swallow of water. Repeat in 15 minutes if necessary.	" " 1.....	5·4	2·2	" .	" .	45439	Meets requirements of P. or P. Act.
	" " 2.....	5·2	2·3	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF NEW BRUNSWICK—
1911.								
April 20	Headache Powders	45440	D. E. O. Steeves, Moncton, N.B.	3 pkg.	25	H. K. Wampole, Perth, Ont.	.....	Steeves' Headache Powders. For headache, neuralgia and feverish conditions. Each powder contains acetanilide (4½ grains) in combination with caffeine, sodium bicarbonate and aromatics. Steeves pharmacy, Moncton, N.B.
" 20	"	45441	Acadia Drug Co., Moncton, N.B.	3	30	Vendors	.....	Ideal Headache Powders No. 819. The Proprietary or Patent Medicine Act. Acadia Drug Co., Moncton, N.B.
" 21	"	45442	Dickison & Troy, Newcastle, N.B.	3 "	30	Toronto Pharmacal Co., Ltd., Toronto	.....	Perfect Headache Powders, Dickison & Troy, Druggists, &c., Newcastle, N.B. No. 95, Proprietary or Patent Medicine Act. Prepared by Toronto Pharmacal Co., Ltd. These Headache Powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits.
" 22	"	45443	The McCarthy Drug Co., Bathurst, N.B.	3 "	30	H. K. Wampole Co., Ltd., Perth.	.....	Headache Powders for headache, neuralgia and feverish conditions. Each powder contains acetanilide (4½

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Anti-pyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. C. FERGUSON, INSPECTOR—*Continued.*							
Dose for headache.—One powder repeated in 30 minutes if necessary. At least three hours should elapse before another dose is taken. A seidlitz powder or other mild laxative should be taken with the first dose. Care should be taken in administering to children. Reduce the dose according to age. Dose for sleeplessness, one powder on retiring. The powders may be taken dry on the tongue followed by a little water.	Powder No. 1.....	11·6	4·5	None.	None.	45440	Acetanilide declared up to 4½ grains. One powder in excess of this amount. Meets requirements of P. or P. Act.
	" " 2.....	13·5	5·2	"	"		
Directions.—Place a powder on the tongue and swallow with a draught of water. If not relieved in an hour another powder may be taken.	" " 1.....	14·3	none.	Less than 5 grains	none.	45441	Meets requirements of P. or P. Act.
	" " 2.....	12·9	"		"		
Directions.—Take one powder in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible.	Powder No. 1.....	10·3	2·1	none.	"	45442	Curative properties claimed. Meets requirements of P. or P. Act.
	" " 2.....	10·8	2·2	"	"		
Dose for Headache.—One powder repeated in thirty minutes if necessary, at least three hours should elapse before another dose is	Powder No. 1.....	10·9	4·1	"	"	45443	Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	11 8	4·6	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer of Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Description as found on the label.
								DISTRICT OF NEW BRUNSWICK—
1911.								grains), in combination with cafferine, sodium, bicarbonate and aromatics. The McCarthy Drug Co., Bathurst, N.B.
								DISTRICT OF QUEBEC—
Mar. 28	Headache Powders	36391	J. B. Morin, 318 Rue St. Joseph, Quebec.	3 b'xs.	75	.....	Dr. Ed. Morin & Cie.	Mathieu's Nervine Powders. For headache and neuralgia, contains no opium, morphine or chloral. One powder will relieve and a few powders will cure you. These powders are very good for children cutting their teeth. No. 473. The Proprietary or Patent Medicine Act.
" 28	"	36392	" ..	3 "	75	The Hoffman Drug Co., Buffalo, N.Y.	" ..	Hoffman's Harmless Headache Powders, a simple and effective cure for all headaches. We guarantee these powders to contain no opium, quinine, bromides or narcotics. Is not a cathartic. The Hoffman Drug Co., International Bridge, Ont. Canada and Buffalo, N.Y., stamp.
" 30	"	36393	L. E. Martel, 91 Rue St. Joseph, Quebec.	3 box's	30	Toronto Pharmacal Co., Toronto.	Manufacturers.	This sample is described like No. 46018.
" 30	"	36394	" ..	3 "	30	F. G. Wheaton Co., Ltd.	W. Brunet & Cie.	This sample is described like No. 42277.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grain.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. C FERGUSON, INSPECTOR—*Concluded.*							
taken. A seidlitz powder or other mild laxative should be taken with the first dose. Care should be taken in administering to children. Reduce dose according to age. Dose for sleeplessness, one powder on retiring. These powders may be taken dry on the tongue, followed by a little water.							
F. X. W. E. BELAND, INSPECTOR.							
Directions:—One powder every three hours; however, the dose can be repeated after one hour if not relieved. For children 1 to 2 years old, divide one powder in 12; 3 to 4 years, divide one powder in 8; 5 to 10 years, divide one powder in 4; 10 to 15 years, divide one powder in 2. How to take them: Place a powder on the tongue and drink a little water after.	Powder No. 1.....	6·8	4·9	none.	none.	36391	Curative properties claimed. No declaration of acetanilide—violates requirements of P. or P. Act, acetanilide being in excessive amount.
	" " 2.....	6·9	5·0	"	"		
Directions:—Place a powder on the tongue and swallow with a draught of water. If not relieved in half an hour take another powder.	Powder No. 1.	11·5	4·9	"	"	36392	Curative powers claimed. No declaration of acetanilide—violates P. or P. Act, as acetanilide in excessive amount; but is protected by stamp.
	" " 2.	9·9	4·3	"	"		
.....	Powder No. 1.....	8·3	1·7	None.	None.	36393	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	8·1	1·7	" .	" .		
.....	Powder No. 1.....	5·0	2·0	None.	None.	36394	Acetanilide Declared. Meets requirements of P. or P. Act.
	" " 2.....	6·4	2·5	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF QUEBEC—
1911.								
Mar. 31	Headache Wafers.	36395	W. Brunet & Cie, 139 Rue St. Joseph, Quebec.	3 boxes	50	Lymans, Ltd., Montreal.	Manufacturers.	Lyman's Headache Wafers. A positive cure for sick and bilious, headache and neuralgia. No. 213 The Proprietary or Patent Medicine Act, mfg. by Lyman, Sons & Co., Montreal.
" 31	" .	36396	" ..	3 " .	44	Stearns, Detroit, Mich.	..	Stearns' Headache Cure. Frederick Stearns & Co, Detroit, Mich., and Windsor, Ont. Is composed solely of phenyl - acetamid, Theine & Lactose. A speedy and certain cure for headaches of all origin, whether sick, bilious, nervous, or hysterical, also a positive relief in neuralgia. These wafers contain no injurious narcotics and are warranted free from antipyrine, morphine, chloral or opium, new style adopted Nov. 1, 1898.
April 6	Headache Powders	36397	Alphonse Martineau, 734 Rue St. Valier, Quebec.	3 " .	60	Mathien, Sherbrooke.	Dr. Ed. Morin & Cie.	This sample is described like No. 36391.
" 6	" ..	36398	" ..	3 " .	75	Hoffman, Buffalo, N.Y.	" ..	This sample is described like No. 36392.
" 7	" ..	36399	Joseph Masson, 808 Rue St. Valier, Quebec	3 " .	60	Mathien, Sherbrooke.	" ..	This sample is described like No. 36391.
" 7	" ..	36400	" ..	3 " .	60	Hoffman, Buffalo, N.Y.	" ..	This sample is described like No. 36392.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Anti pyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.							
Directions;—Soften the wafer by placing it for a moment in a little water, then swallow with a drink of water. If relief be not obtained, a second wafer may be taken half an hour or an hour later.	Powder No. 1..... " " 2.....	5·7 5·9	....	less than 5 grs.	....	36395	Curative properties claimed. Meets requirements of P. or P. Act.
Directions.—Place the wafer in a glass of water until thoroughly softened (about ½ to 1 minute) and place it in the mouth while soft, swallow with a drink of water. If relief is not obtained repeat in an hour, but more than two wafers should not be taken in succession. The wafer should be taken as early in the attack as possible.	Powder No. 1..... " " 2.....	10·1 10·4	4·0 4·2	None. " .	None. " .	36396	Curative powers claimed. Acetanilide is disguised as phenylacetamide. Technically meets requirements of P. or P. Act.
.....	Powder No. 1..... " " 2.....	5·2 6·3	3·7 4·6	None. " .	None. " .	36397	Curative powers claimed. No declaration of acetanilide which is in excess. Violates P. or P. Act.
.....	Powder No. 1..... " " 2.....	11·8 11·7	5·1 5·1	None. " .	None. " .	36398	Curative powers claimed. No declaration of acetanilide which is in excess. Protected by stamp.
.....	Powder No. 1..... " " 2.....	5·8 5·3	4·1 3·6	None. " .	None. " .	36399	Curative powers claimed. No declaration of acetanilide, which is in excess. Violates P. or P. Act.
.....	Powder No. 1..... " " 2.....	10·0 11·1	4·3 4·9	None. " .	None. " .	36400	Curative powers claimed. No declaration of acetanilide, which is in excess. Protected by stamp.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Description as found on the label.
								DISTRICT OF ST. HYACINTHE—
1911.								
April 24	Headache Wafers	38901	Bruno & Sylvester, Sorel.	3 boxs	60	Vendors		Roux's Headache Wafers. A speedy, certain and safe cure for headaches of all origins whether sick, bilious, nervous or hysterical; also a positive relief in neuralgia. These wafers contain no injurious ingredients and are warranted free from antipyrine, morphine, chloral and opium. Roux Chemical Co.
24	"	38902	Pharmacie Provost, Sorel.	3 "	50	Lymans, Ltd., Montreal.		Wafers were loose, rolled in paper.
25	"	38903	Dr. O. Demers, West Farnham, P.Q.	3 "	75	Lyman-Knox, Montreal.		Headache Wafers. Each wafer contains phenacetin 4 grains, quinine hydrochlor 2 grains, caffeine 1 grain. A speedy, certain and safe cure for headaches of all origins, whether sick, bilious, nervous or hysterical; also a positive relief in neuralgia. Dr. O. Demers.
25	Headache Pills.	38904	J. B. Comeau, Farnham, P.Q.	3 "	75	F. Stearns & Co., Windsor, Ont.		A. B. C. Headache Pills. Acetanilide, bromide of camphor, caffeine. Safe, pleasant and effective. These pills contain no chloral, opium, antipyrine, morphine or quinine, and will produce no bad effect if taken according to directions. They will be found most useful in all forms of nervous headache, melancholy, neuralgia, lagrippe,

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide=Anti-febrin, grains.	Phenacetin, grains.	Phenazone=Antipyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. C. ROULEAU, INSPECTOR.							
Directions.—Place the wafer in a glass of water until thoroughly soaked (about ½ to 1 minute) and place it in the mouth while soft. Swallow with a drink of water. If relief is not obtained, repeat in an hour, but it is not advisable to take more than two wafers in succession. The wafers should be taken as early in the attack as possible.	Powder No. 1.....	3·7	3·7	None.	None.	38901	Curative powers claimed. No declaration of acetanilide, which is in excess. Violates terms of P. or P. Act.
	" " 2.....	4·3	4·3	" .	" .		
.....	" " 1.....	5·4	None.	Less than 5 grains	None.	38902	Contain phenacetin within limits allowed by P. or P. Act.
	" " 2.....	7·1	" .	" .	" .		
Directions.—Place the wafer in a glass of water until thoroughly softened, then swallow with a little water. Another may be taken in an hour if the first has not given sufficient relief.	" " 1.....	4·8	" .	" .	"	38903	Cure claimed. Phenacetin within allowed limits.
	" " 2.....	7·8	" .	" .	" .		
Dose.—Take two or three pills soon as the headache comes on, and if relief is not obtained in the course of an hour, take two more and repeat the dose every six hours as occasion may demand. Weak and delicate persons should take smaller doses. Children from 6 to 12 years of age ½ adult dose.	" " 1.....	5·8	1·2	" .	None.	38904	Conform to requirements of P. or P. Act. Acetanilide declared.
	" " 2.....	5·3	1·1	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF ST. HYACINTHE—
1911.								
								fevers, colds and toothache; also indicated in rheumatism and lumbago. Sleeplessness from any cause is promptly relieved by the proper use of these pills. Dr. J. B. Comeau, chemist and druggist, Farnham, P.Q.
April 26	Headache Wafers.	38905	P. P. Sabourin, St. Jean.	3 box.	75	The Zymole Co., Inc., New York.	.....	This sample is described like No. 42284.
" 26	Headache Pills.	38906	F. C. Saunders, Bedford, P.Q.	3 "	75	F. Stearns & Co., Windsor, Ont.	.....	EAZAKE. A prompt but harmless cure in all forms of headache, neuralgia, la grippe and those pains peculiar to females. F. C. Saunders, druggist, Bedford, P.Q. Each tablet contains 4 grains phenyl acetamide. No. 576 The Proprietary or Patent Medicine Act.
" 27	Headache Wafers.	38907	Dr. J. A. Beaudry, Granby.	3 box.	75	Lyman Sons & Co., Montreal.	.....	This sample is described like No. 36395.
May 4	Headache Cachets.	38908	Dr. Béique, Magog.	3 doz.	75	.....	.....	Cachets were loose rolled in paper.
" 5	Headache Powders	38909	Cie J. S. Mathieu, Sherbrooke	3 box.	Nil.	Vendors	.....	This sample is described like No. 36391.
" 3	"	38918	G. W. Johnston, Sutton.	"	75	Vendor.....	.....	Up to date Headache Powders.

HEADACHE POWDERS.

Directions for use as und on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.		
Continued.							
.....	Powder No. 1.....	9·9	4·0	" .	" .	38905	Curative powers claimed. Acetanilide in excess of amount stated on label. Meets requirements of P. or P. Act.
	" " 2.....	9·4	3·9	" .	" .		
Directions.—Swallow one with a mouthful of water; repeat in ½ an hour if not relieved. Not more than 3 to be taken in succession. They act quicker if crushed to a powder before swallowing.	" " 1.....	5·9	3·4	" .	" .	38906	Curative power claimed. Acetanilide disguised as phenyl-acetamide. Meets terms of P. or P. Act technically.
	" " 2.....	5·7	3·4	" .	" .		
.....	Powder No. 1.....	4·8	None.	Less than 5 grs.	None.	38907	Curative properties claimed. Meets requirements of P. or P. Act.
	" " 2.....	4·5	"	.....	"		
.....	" " 1.....	9·2	3·9	None.	"	38908	No statement as to registration. Acetanilide too high as undeclared; doubtful.
	" " 2.....	9·2	3·9	"	"		
.....	" " 1.....	6·9	4·8	"	"	38909	Curative properties claimed. No declaration of acetanilide violates requirements of P. or P. Act.
	" " 2.....	6·8	4·6	"	"		
None.....	" " 1.....	8·7	None.	Less than 5 grs.	"	38918	Phenacetine within limits allowed without declarations.
	" " 2.....	9·4	"	.....	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF MONTREAL—
1911.								
Mar. 27	Headache Powders	40631	Sylvio Choquet, 153 Amherst St., Montreal.	3 box.	60	Cie J. L. Mathieu, Sherbrooke.	...	This sample is described like No. 36391.
"	"	40632	"	"	75	Toronto Pharmacal Co.,	.....	This sample is described like No. 46018.
"	Headache Wafers	40633	Quenneville, Guerin & Co., 90 St. Catherine St. East, Montreal.	....	45	.....	.....	Churchills Anti-migraine Wafers, No. 1461. The Proprietary of Patent Medicine Act. A certain and safe cure for headache arising from neuralgia, fatigue of body or mind, over-eating, alcohol, tobacco, &c. Jubilee Medicine Co., 700 St. Catherine St. East.
"	"	40634	"	"	"	.....	.....	Cachets du Dr. Fred Demers, Montreal, No. 11. The Proprietary or Patent Medicine Act. Contre le mal de tête. Guérison prompte et certaine des névralgies et de tous maux de tête nerveux et bilioux. Ce cachet est inoffensif et supérieur à tous les autres. Para Acetphenetidine and Phenyl. Acetamide.
"	"	40635	"	"	"	.....	.....	Gauvin's Headache Wafers. Recommended by the Medical profession for the cure of headache, neuralgia, grippe, cold in the head and nervousness caused by overwork. The Proprietary or Patent Medicine Act 704. Acetanilide. J. A. E. Gauvin, Montreal.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. J. COSTIGAN, INSPECTOR.							
		p. c.	p. c.	p. c.	p. c.		
.....	Powder No. 1.....	5·3	3·7	None.	None.	40631	Curative properties claimed. Violates P. or P. Act.
	" " 2.....	5·0	3·5	"	"		
.. ..	" " 1	10·0	2·0	"	"	40632	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	9·9	1·9	"	"		
Place the wafer in a glass of water until softened (about 5 to 10 seconds) and put it in the mouth while soft. Swallowing it with a drink of water. If relief is not obtained in an hour repeat the dose; but not more than two wafers should be taken in succession. The wafers should be taken as soon as possible after the attack begins.	" " 1.... ..	8	2·3	present.	"	40633	Curative powers claimed. Contains maximum acetanilide as well as phenacetive. Violates P. or P. Act.
	" " 2.....	6·7	2·3	"	"		
Directions — Soften the wafer by placing it for a moment in a little water, then swallow with a drink of water. If relief is not obtained a second wafer may be taken half an hour or an hour later, but more than two wafers should not be taken in succession. The wafers should be taken as early as possible in the attack.	" " 1.....	5·7	More than 2 grains	present.	"	40634	Curative properties claimed. Contains both acetanilide and phenacetine which are declared, but by unusual names, on the label.
	" " 2.....	6·2	"	"	"		
Directions — Place the wafer in a tumbler of water for a quarter of a minute to soften, then swallow with a mouthful of water. If relief does not follows, repeat the dose in 20 minutes. In severe cases such as grippe, take one wafer every three hours.	" " 1.....	14·8	3·3	"	"	40635	Curative power claimed acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.... ..	13·5	5·6	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF MONTREAL—
1911.								
Mch. 27	Headache Tablet.	40636	M. Albert, St. Lawrence St., Montreal.	3 box.	75	The Montreal Chemical Co.	.....	Kopvey. A delicious cream for headache. No. 1135 The Proprietary or Patent Medicine Act. Prepared only by the Montreal Chemical Co., Montreal.
" 27	Headache Wafers.	40637	H. R. Gray, 198 St. Lawrence St., Montreal.	3 "	75	.....	.....	Gray's Headache Wafers. For nervous, sick, neuralgic and hysterical headaches. No. 262 The Proprietary or Patent Medicine Act. Henry R. Gray, Chemist, Montreal.
" 27	Headache Powders	40638	The Dr. Leduc Drug Co., Notre Dame West, Montreal.	3 "	25	Vendors	.....	Perfect Headache Powders 630 Proprietary or Patent Medicine Act. These headache powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits. The Dr. Leduc Drug Co., Reliable Druggists, Montreal.
" 27	" ..	40639	" ..	3 "	60	Hoffman Drug Co.	.....	This sample is described like No. 36392.
" 27	Headache Wafers.	40640	J. Pigeon, 412 Notre Dame W., Montreal.	3 "	75	Vendor.....	.....	Pigeon's Headache Cure. These wafers contain no injurious narcotics and are warranted free from antipyrin, morphine, chloral or opium, J. Pigeon, Chemist, &c., Montreal.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.		
Continued.							
Dose.—One chocolate. Repeat in one hour if necessary.	Powder No. 1.....	63·5	None.	less than 5 grs.	None.	40636	Meets requirements of P. or P. Act.
	" " 2.....	54·8	" .	.....	" .		
Directions.—Dip the wafers for a few moments in water to soften it, then lay it on the tongue, and swallow with a drink of water. If relief is not obtained in an hour, repeat the dose, not more than two should be taken in succession.	" " 1.....	17·0	None.	less than 5 grs.	None.	40637	Meets requirements of P. or P. Act.
	" " 2.....	15·9	" .	.....	" .		
Directions.—Take one powder in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible.	" " 1.....	9.0	1·7	None.	None.	40638	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	10·0	1·8	" .	" .		
.....	" " 1.....	10·4	4·2	None.	None.	40639	Curative powers claimed. Acetanilide dedeclared.
	" " 2.....	11·0	4·7	" .	" .		
Directions.—Place the wafer in a glass of water until thoroughly softened (½ to 1 minute) and place it in the mouth while soft, swallow with a drink of water. If relief is not obtained, repeat in an hour, but more than two wafers	" " 1.....	7·7	2·5	None.	None.	40640	Curative powers claimed. Slight excess of acetanilide. Doubtful.
	" " 2.....	8·2	2·7	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer of Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer of Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF MONTREAL
1911.								
								DISTRICT OF OTTAWA—
Mch. 31	Headache Wafers.	43201	D. J. Stalker, Ottawa.	3 pkts	75	Nat. Drug & Chem. Co., Ottawa.	Manufacturer.	This sample is described like No. 42276.
" 31	Headache Powders	43202	T. Payment, Ottawa.	3 "	75	C. H. Gunn & Co., Chatham, Ont.		Miller's Headache and Grip Powders. A quick cure for nervous headache, sick headache, neuralgic pains or pains from any cause, one or two doses will arrest the worst case of sick headache and will cure the most distressing attack of nervous headache. Put up by C. H. Gunn & Co., Chatham, Ont.
" 31	Headache Wafers.	43203	Beattie & Argue, Ottawa.	3 b'xes	75	F. Stearns & Co., Windsor, Ont.	Manufacturers.	Nyal's Headache Cure, also of great value in neuralgia, la grippe, rheumatism and all allied pains. Each wafer contains one grain of pure alkaloid of caffeine and three grains of pure acetanilid. Nyal's Headache Cure, contains no opiates, such as morphine, and other narcoticis and is free from antipyrin chloral and other dangerous drugs. New York and London Drug Co., New York, U.S.A.
Apr. 1	Headache Powders	43204	Allen & Cochrane, Ottawa.	3 "	75	Vendors		The Red Cross Headache Powder. Robinson's Formula. Harmless, prompt, effective, guaranteed to con'

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grain.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phen zone = Anti-pyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.							
should not be taken in succession. The wafers should be taken as early in the attack as possible.							
J. A. RICKEY, INSPECTOR.							
.....	Powder No. 1..	4·0	None.	None.	None.	43201	Apparently contains aspirin (aceto-salicylic acid).
	" 2.....	4·7	" .	" .	" .		
Dose.—Adults one powder; 5 years $\frac{1}{3}$ of a powder; 8 years $\frac{1}{2}$, and 12 years $\frac{3}{4}$ of a powder, repeated in one hour if necessary, and if after four hours all pain is not gone, repeat.	Powder No. 1.....	5·9	5·5	None.	None.	43202	Curative powers claimed. Acetanilide in great excess. Violates P. or P. Act.
	" 2.....	6·6	6·1	" .	" .		
Directions.—Soften a wafer by dropping it into a glass of water for a moment, then take a swallow of water. The dose may be repeated in one hour if entire relief is not obtained, but not sooner and not more than two in all should be taken.	Powder No. 1.....	7·0	3·1	None.	None.	43203	Curative powers claimed. Meet requirements of P. or P. Act. Acetanilide being declared.
	" 2.....	8·5	3·8	" .	" .		
One powder on the tongue and swallow with a draught of water. Repeat in a hour if necessary.	Powder No. 1.....	7·9	Less than 2 grains	Less than 2 grains	None.	43204	Meets requirements of P. or P. Act. Acetanilide and phenacatine declared.
	" 2.....	7·9	"	"	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Description as found on the label.
								DISTRICT OF OTTAWA—
1911.								tain no opium, quinine, bromides, or narcotics. Gives immediate relief from headache arising from almost any cause. 166 proprietary or patent medicine act. Acetanilide 2 grains, phenacetine 2 grains. Allen & Cochrane, The Red Cross Druggists, Ottawa, Ont.
April 1	Headache Wafers.	43205	N. W. Campbell, Ottawa.	3 bxs.	75	F. Stearns & Co., Windsor, Ont.	.....	This sample is described like No. 42284.
" 3	" ..	43206	W. Johnston, Smith's Falls.	3 " ..	75	Hoffman Drug Co., International Bridge. Ont.	Lymans, Ltd., Montreal.	This sample is described like No. 36392. stamp—no register number.
" 3	" ..	43207	L. M. Dockrill, Smith's Falls.	3 " ..	75	Toronto Pharmacal Co., Toronto.	Manufacturer.	Perfect Headache Powders. F. M. Dockrill, Phm.B., Druggist, &c., Smith's Falls, Ont. Cafferine soda bicarb, acetanilide, 2 grains in each powder. These headache Powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and forms of depression of spirits.
" 5	Headache Tablets.	43208	S. E. Johnston, Arnprior.	3 " .	75	Herald Remedy Co., Montreal.		Hedrite cures headache. Pleasant, harmless, speedy relief. The Herald Remedy Co., Chicago, Montreal.
" 7	Headache Powders.	43209	W. H. Raney, Prescott.	3 " ..	75	United Drug Co., Ltd., Toronto.	Manufacturers.	This sample is described like No. 46015.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Continued.							
.....	Powder No. 1.	7·8	3·5	none.	none.	43205	Curative powers claimed. Acetanilide in slight excess of amount declared.
	" No. 2.....	8·3	3·8	"	"		
.....	" No. 1.....	10·8	4·6	"	"	43206	Curative powers claimed. Protected by stamp.
	" No. 2.....	10·3	4·8	"	"		
Directions:—Take one powder dry on the tongue, or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	" No. 1.....	12·7	2·4	"	"	43207	Curative powers claimed. Meets requirements of P. or P. Act. Acetanilide declared.
	" No. 2.....	9·4	1·9	"	"		
Directions:—Place the lozenge on the tongue and swallow with a drink of water.	" No. 1.....	10·9	5·5	"	"	43208	Curative powers claimed. Great excess of acetanilide violates terms of P. or P. Act.
	" No. 2.....	11·3	6·2	"	"		
.....	" No. 1.....	6·5	none.	Less than 5 grs.	"	43209	Meets requirements of P. or P. Act.
	" No. 2.....	7·0	"	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF OTTAWA—
1911.								
April 7	Headache Powders.	43210	S. E. Mills, Prescott.	3 bxs.	75	The Chemists of Canada.	Manufacturers.	The Chemists' Headache Powders No. 90, the Proprietary or Patent Medicine Act. Quickly cures headache and relieves neuralgia, safe and efficient, are harmless, pleasant to the taste, easily taken. These powders are an effective cure for headache and neuralgia. They are efficient and prompt in their action, without disturbing the stomach or nervous system. The Chemists' Co. of Canada, Ltd., Hamilton, Toronto, Winnipeg. These powders contain acetanilide combined with caffeine. They do not contain any opium, morphine, quinine, bromide or any narcotic.
								DISTRICT OF KINGSTON—
Mar. 24	Headache Wafers.	47746	F. Hoag, Kingston.	3 pkg.	75	Stearns, New York.	....	This sample is described like No. 42284.
" 24	Headache Powders.	47747	C. S. Prouse, Kingston.	3 " .	25	Vendor..	.....	Prouse's Headache Powders. These headache powders are a safe and effective cure for sick and nervous headache and neuralgia. No. 1773 The Proprietary or Patent Medicine Act.

HEADACHE POWDERS

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Concluded.							
Directions for adults:—Place the powder on the tongue and swallow with a draught of water. If not relieved in half an hour take another powder. Do not repeat again for four hours. See special directions on circular.	Powder No. 1.....	11·9	3·9	none.	none.	43210	Curative powers claimed. Meets requirements of P. or P. Act, presence of acetanilide being declared.
	" No. 2.....	9·6	3·2	"	"		
JAS. HOGAN, INSPECTOR.							
.....	Powder No. 1.....	8·1	3·5	None.	None.	47746	Called a cure. Acetanilide in slight excess of amount declared on label.
	" No. 2.....	8·1	3·5	"	"		
Directions.—Place the powder on the tongue and swallow with a draught of water. Repeat in one hour if necessary.	Powder No. 1.....	7·8	None.	Less than 5 grains	None.	47747	Curative powers claimed. Meets requirements of P. or P. Act.
	" No. 2.....	7·1	"		"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF KINGSTON—
1911.								
Mar. 24	Headache Powders.	47748	A. P. Chown, Kingston.	3 pkg.	75	Vendor.-.....	.....	Dr. Chown's Improved Headache Powders. A quick, safe and certain cure for headaches of all origins, whether bilious, nervous or hysterical. These powders are made from the purest ingredients and are guaranteed free from antipyrine, morphine, opium or chloral. Prepared by Dr. A. P. Chown, Kingston, Ont. Stamp on.
" 24	" .	47749	W. W. Gibson. Kingston.	3 " .	30	"	.....	Perfect Headache Powders, No. 813 Proprietary or Patent Medicine Act. These headache powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits. W. W. Gibson Druggist, Kingston, Ont.
" 27	" .	47750	J. S. McKeown, Belleville.	3 " .	75	United Drug Co., Toronto	.....	This sample is described like No. 46013.
" 27	" .	47751	D. M. Waters, Belleville.	3 " .	30	Vendor..	.....	A harmless, simple and almost instantaneous relief for all kinds of headache, prepared by Donald M. Waters, Pharmaceutical Chemist, Bellville, Ont.
" 28	" .	47752	McDermid & Jury, Peterboro.	3 " .	75	Hooper Co., Toronto.	.....	On box. Hooper's Headache Powders No. 925 Proprietary or Patent Medicine Act. This remedy is carefully prepared from

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Ante-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Continued.							
Directions.—Place one powder on tongue and wash down with a little water. If not entirely relieved repeat in one hour. Not more than two powders should be taken in succession. Take as early in the attack as possible.	Powder No. 1.....	6·1	1·5	.....	.....	47748	Curative powers claimed. Meets requirements of P. or P. Act.
	" No. 2.....	6·7	1·9				
Directions.—Take one powder dry on the tongue, or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1.....	10·2	2·1	None.	None.	47749	Curative powers claimed. Acetanilide in excess in one powder. Carelessly compounded; doubtful.
	" No. 2.....	11·2	3·1	" .	"		
.....	Powder No. 1.....	5·1	None.	Less than 5 grains	None.	47750	Meets requirements of P. or P. Act.
	" No. 2.....	5·7	" .		" .		
Directions.—Place a powder on the tongue and swallow with a draught of water. If not relieved in half an hour follow by another powder, and then do not repeat for 4 hours.	.....	5·5	3·8	.....	.....	47751	One powder only furnished for analysis. Acetanilide in excess. Violates P. or P. Act.
Directions on box.—Place one powder on the tongue and swallow with a little water. The dose for adults is one powder. This usually gives prompt relief, but the	Powder No. 1 ...	5·4	2·5	None.	None.	47752	The name and directions on the box do not agree with those on the powders. Conform to P. or P. Act, acetanilide declared.
	" No. 2.....	5·9	2·7	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF KINGSTON—
1911.								
								the finest quality of acetanilid, citrate of caffein and rochelle salt, and is vastly superior to many. It is guaranteed not to contain any narcotic poisons, such as opium, morphin, belladonna, etc. Those afflicted with periodic headaches, neuralgia, etc., will find highly satisfactory results from its use. On powder, J. & P. headache powders. Jury and Gregory, Druggists, Oshawa, Collingwood, Bowmanville and Lindsay.
Mar. 28	Headache Powders.	47753	Warne Drug Co., Peterboro'.	3 pkg.	30	Toronto Pharmacal Co., Toronto.	.....	This sample is described like No. 46018.
" 28	"	47754	Geo Watson, Port Hope.	3 "	30	Vendor	.....	Perfect Headache Powders, T. G. Watson, Port Hope. Prepared by Toronto Pharmacal Co., Ltd., 95 Proprietary or Patent Medicine Act. These Headache Powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits.
" 28	"	47755	H. W. Mitchell, Port Hope.	3 "	30	"	.....	Perfect Headache Powders. W. H. Mitchell, Port Hope, Ont. These Headache Powders are an instantan-

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Anti-pyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.							
dose may be repeated in one hour if found necessary. More than two doses should never be taken in succession. In order to secure best results this remedy should be taken as early in the attack as possible. Directions on each powder.—Place the powder on the tongue and take a swallow of water. Take another powder in half an hour if necessary. Children should only take half a powder, or less according to age.							
.....	Powder No. 1.	10·1	2·2	None.	None.	47753	Curative powers claimed. Meets P. or P. Act.
	" " 2. ...	9·9	2·3	"	"		
Directions:—Take one powder dry on the tongue or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	" " 1.....	9·5	1·9	"	"	47754	Curative properties claimed. Meets requirements of P. or P. Act.
	" " 2.....	10·2	2·0	"	"		
Directions:—Take one powder dry on the tongue or in a little water, and repeat in half an hour if not relieved. Take as early	" " 1.....	7·7	1·5	"	"	47755	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	8·7	1·7	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF KINGSTON—
1911.								eous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits. Stamp on.
								DISTRICT OF TORONTO—
Apr.	3	Headache Powders.	47252 D. H. MacLaren, Barrie.	3 pkg.	25	Vendor		MacLaren's Perfect Headache Cure. A safe and instantaneous cure for headache and neuralgia. The Proprietary or Patent Medicine Act No. 1479. D. H. MacLaren, Chemist and Druggist, Barrie.
"	3	"	47253 W. J. MacFadden, Orillia.	3 "	25	The Toronto Pharmacal Co., Ltd., Toronto.		This sample is described like No. 46018.
"	3	"	47254 A. H. Fowlie, Midland.	3 "	45	Vendor		Fowlie's Headache Powders. Simple and effective. This powder is not a cathartic. If the headache is caused by indigestion or derangement of the digestive organs, some gentle cathartic should be used. A. H. Fowlie, Phm. B., Chemist and Druggist, Midland, Ont. Stamp on.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Concluded.							
in the attack as possible. Do not repeat needlessly.							

H. J. DAGER, INSPECTOR.

Directions:—Place the powder on the tongue and swallow with a draught of water. If not relieved in half an hour take another.	Powder No. 1.....	12·2	4·0	present.	.....	47252	Curative powers claimed. Excess of acetanilide and phenacetin also present, without declaration. Violates P. or P. Act.
	" " 2.....	12·0	.....	.....	.....		
.....	" " 1.....	10·4	2·1	none.	none.	47253	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	13·1	2·5	"	"		
Directions:—Place a powder on the tongue and swallow with a glass of water. May repeat in an hour if required.	" " 1.....	10·2	4·2	"	"	47254	Excess of acetanilide. Protected by stamp.
	" " 2.....	10·9	4·9	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF TORONTO—
1911.								
April 4	Headache Powders.	47255	Leader Pharmacy Co., Ltd., 65 King St., Toronto.	3 pkg.	30	Vendors	.....	Perfect Headache Powders, Leader Pharmacy Co., Ltd., Toronto. 1236 Proprietary or Patent Medicine Act. These headache powders are an instantaneous cure for sick or nervous headache and neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits.
" 7	" ..	47256	Howell & Co., 1674 Dundas St. West, Toronto.	3 "	25	Vendors	.....	Headache Powders—A positive relief for headache and neuralgia, Howell & Co., Druggists, Toronto
" 11	" ..	47257	J. A. Woodhouse, 153 King St. West, Hamilton.	3 "	70	W. A. Howell, Hamilton.	.....	Howell's sure cure for sick and nervous headache, neuralgia, &c., absolutely pure and harmless, never disappoints. Contains no antipyrin, opium, morphia or other poisons. A combination of 3. Stamp on.
" 11	" ..	47258	Parke & Parke, 16 Market Square, Hamilton.	3 "	75	Vendors	.....	Parke's Headache Powders—Relieves instantly and cures headache, neuralgia rheumatism, cold in the head, etc. They contain no morphine, chloral or other narcotics, "on powder." This powder contains caffeine and acetanilide. No. 84 Proprietary or Patent Medicine Act. Parke & Parke, Druggists, Hamilton.

HEADACHE POWDERS.

Direction for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Continued.							
Directions:—Take one powder dry on the tongue, or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1.....	13·1	2·6	None.	None.	47255	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	10·3	2·1	"	"		
Directions.—Place a powder on the tongue and take a swallow of water, if necessary repeat the dose in 20 minutes.	Powder No. 1.....	9·9	4·5	" .	" .	47256	Excess of acetanilide, without declaration. Violates P. or P. Act.
	" " 2.....	11·8	5·4	" .	" .		
Directions.—One powder on the tongue, swallow with a draught of water. Repeat in 60 minutes if required; children one half.	Powder No. 1.....	8·9	4·4	None.	None.	47257	Curative power claimed. Excess acetanilide but protected by stamp.
	" " 2.....	8 3	4·1	" .	" .		
Directions for adults.—Place one powder on the tongue and swallow with a draught of water. If not relieved, repeat in half an hour, and not again for four hours.	Powder No. 1.....	6·8	5·1	None.	None.	47258	Curative power claimed. Acetanilide declared.
	" " 2.....	7·5	5·4	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF TORONTO—
1911.								
April 11	Headache Powders.	47259	Hennessey Drug Store, Ltd., 7 King St., Hamilton.	3 pkg.	75	Vendors.....	.....	Sutherland's Headache Powders.—Safe and effective. Cure any headache. Relieve neuralgia at once. No. 1071 The Proprietary or Patent Medicine Act. Prepared by Jno. P. Hennessey, Chemist, Hamilton
" 11	" ..	47260	Hawkins, Ltd., MarketSquare, Hamilton.	3 " .	75	" ...	.....	Spackman's Neuralgia Powders.—A quick and certain relief for nervous and sick headache and neuralgia. Contains acetanilide. Prepared by Hawkins, Ltd., Hamilton.
" 11	" ..	47261	W. B. Smith, 245 King St., East, Hamilton	3 " .	45	Vendor.....	.....	Smith's Headache Powders.—W. B. Smith, Druggist, Hamilton.
								DISTRICT OF LONDON—
April 25	Headache Powders	48002	Alex. Stewart, Guelph.	3 pkg.	30	Vendor.....	.....	Soothal.—A new discovery for the cure of headache and neuralgia. The only known remedy known for these complaints free from ingredients that cause heart depression. Instant relief easy to take. Soothing to the nerves. Each powder contains one grain of caffein alkaloid and four grains of pure phenylacetamide. Prepared by Alex. Stewart Mfg., Chemist, Guelph, Ont.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, gran.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.		
Concluded.							
Directions.—Plach powder on the tongue and swallow with a draught of water. If not relieved in half an hour take another powder. Do not take a third for two hours.	Powder No. 1.....	10·8	1·8	None.	None.	47259	Curative power claimed. Meets requirements of P. or P. Act.
	" " 2.....	9·3	1·6	" .	" .		
Directions.—One powder dry on the tongue. Repeat in an hour if needed, then once in 3 or 4 hours for chronic neuralgia.	Powder No. 1.....	8·2	5·5	None.	None.	47260	Acetanilid declared. Is present in more than 5 grains.
	" " 2.....	8·0	5·2	" .	" .		
Directions.—Take one powder on the tongue or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1..	10·4	6·6	None.	None.	47261	Acetanilide present in dangerous amount without declaration. Violates P. or P. Act.
	" " 2..... ..	9·1	5·9	" .	" .		
JNO. TALBOT, ACTING INSPECTOR.							
Directions.—Take a powder dry on the tongue and swallow with a draught of water. Repeat in 3 hours if required and again in 4 hours if not relieved.	Powder No. 1.....	9·1	4·5	None.	None.	48002	Curative power claimed. Acetanilide disguised as phenylacetamide in declaration, and is present in excess of amount claimed.
	" " 2..... ...	1·8	4 8	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF LONDON
1911.								
April 25	Headache Wafers	48004	J. B. Broadfoot, Guelph.	3 pkgs	75	Toronto Pharmacal, Toronto.	.....	Perfect Headache Wafers. Are absolutely free from harmful Drugs, such as Morphia, Chloral, Bromides and similar nerve sedatives. No. 95 the Proprietary or Patent Medicine Act. Toronto Pharmacal Co., Ltd., Toronto, Montreal, Winnipeg.
" 26	Headache Powders	48012	J. H. Schmidt, Berlin.	"	"	Druggists Corporation of Canada, Toronto.	.....	D. C. Headache Powders. A simple safe and effectual remedy for all headaches, easy to take, quick to cure will be found the most effective treatment for the immediate relief of sick headache, nervous headache, neuralgic headache, grippe headache, catarrhal headache, travellers headache. Headache of mental and physical exhaustion or headache from any cause whatever. Do not contain morphine, opium, chloral, cocoaine or any of these dangerous drugs, are invaluable for women who suffer each month. They give prompt relief without depressing the heart or upsetting the stomach. Clear the head, brighten the brain, tone up the nerves, and put a man or woman in shape for a days work. No. 642. The Proprietary Patent Medicine Act con-

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
—*Continued.*							
Directions:—Place the wafer for a few moments in a glass of water until thoroughly soft then swallow. Another may be taken in an hour if the first has not given sufficient relief, a seedlitz powder frequently gives valuable assistance.	Powder No. 1.....	12·2	2·5	None.	None.	48004	Acetanilide in slight excess.
	" No. 2.....	12·2	2 5	"	"		
Directions:—Place the powder on the tongue Swallow with a drought of water. If not relieved in half an hour take another powder. Do not repeat again for four hours.	" No, 1.....	9·3	4·0	None.	None.	48012	Curative powers claimed. Acetanilide declared as Phenylacetamide and present in 4 grain dose. Meets technical ror quirements of P. ɵ. P. Act.
	" No. 2.....	9·2	4·0	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF LONDON—
1911.								
								tains Phenyl-acetamide and other effective pain relieving remedies.
Apr. 26	Headache Powders.	48013	Clarks Bros, Berlin.	3 pgs.	75	Vendor.....	.....	Clark'e Headache Cure. contains acetailid. . No. 913 The Proprietary or Patent Medicine Act, Mfg. and sold only at Clarke's Drug Store, Berlin, Ont.
" 26	"	48015	A. J. Roos, Berlin	"	"	Vendor..	.....	Roos' Headache Powders. No. 513. The Proprietary or Patent Medicine Act. Roos' Pharmacy, Berlin, A.J. Roos Proprieter.
" 26	"	48023	A. M. Edwards, Galt.	"	30	"	.....	Edwards. Fifteen minutes headache and neuralgia cure, will cure a nervous headache in a few minutes, and will give quick relief in pains of all kinds, particulary those of La grippe, neuralgia, rheumatism, and the periodic pains of woman. The actions of the powders may be much helped by taking with them a little hot tea or spirits and and lying down a short time. Sold only by A. M. Edwards, Galt, Stamp on.
" 26	"	48024	W. M. Kirkland, Galt.	"	30	Toronto Pharmacal Co., Toronto.	.....	This sample is described like No. 46018.
" 25	" ..	48396	A. B. Petrie, Guelph.	"	30	Chemists' Co. of Canada, Hamilton.	.....	This sample is described like No. 43210.
" 25	" ..	48399	W. N. Beattie, Guelph.	3 "	75	Vendor.....	.....	Beattie's Headache and Neuralgia Powders No. 1899. The Proprietary and Patent Medicine Act. Prepared by W. H. Beattie, Chemist and Druggist, Guelph, Ont.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Anti-pyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.							
Directions:—One powder with a little water if not relieved in ½ an hour take another powder.	Powder No. 1.....	13·9	6·2	None.	None	48013	Curative powers claimed. Contains excess of acetanilde, but presence is declared.
	" No. 2.....	12·4	5·8	"	"		
Directions:—Take a powder dry on the tongue, followed by a little water, repeat in an hour if not relieved.	" No. 1.....	7·3	None.	Less than 5 grs.	None.	48015	Meets requirements of P. or P. Act.
	" No. 2.....	6·3	"	"	"		
Directions:—For headache and neuralgia take a powder every hour until relieved. For La grippe, rheumatism or female pains, one every three hours.	" No. 1.....	18·5	5·1	.....	.....	48023	Curative powers claimed. Contains excess of acetanilide without declaration, but has stamp on.
	" No. 2.....	19·0	5·5	.....	.....		
.....	Powder No. 1.....	9·6	2·0	none.	none.	48024	Curative powers claimed. Meets P. or P. Act.
	" " 2.....	11·3	3·3	"	"		
.....	" " 1.....	17·8	5·5	"	"	48396	Curative powers claimed. Meets requirements of P. or P. Act. Acetanilide declared.
	" " 2.....	18·5	5·5	"	"		
Directions.—Place a powder on the tongue and swallow with a drink of water. If not relieved in half an hour another powder may be taken.	" " 1.....	3·7	none.	Less than 5 grains		48399	Phenacetin—meets requirements of P. or P. Act.
	" " 2.....	5·9	"	"	.....		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furn sher.	Description as found on the label.
								DISTRICT OF WINDSOR—
1911. Apr. 19	Headache Powders.	48358	W. T. Rapley, Strathroy.	3 pgs.	75	C. H. Gunn & Co., Chatham	.....	This sample is described like No. 43202.
" 20	" ..	48363	H. E. Perrott, Brantford.	3 "	30	Vendor.....	.....	Perrott's Headache Powders, simple and effective. No. 971 The Proprietary and Patent Medicine Act. H. E. Perrott, Chemist, Brantford, Ont.
" 20	Headache Capsules..	48366	S. Tapscott & Co., Brantford	3 "	30	Vendors	.....	Tapscott's Headache Capsules, a harmless and certain cure for all headaches, neuralgia, etc. These capsules contain no morphine, opium or other narcotics. No. 496 The Proprietary or Patent Medicine Act. S. Tapscott & Co., Chemists and Druggists, Brantford.
" 20	Headache Powders.	48368	M. H Robertson, Brantford	3 "	75	Vendor	.....	Robertson's Headache Powders No. 1012. The Proprietary or Patent Medicine Act. M. H. Robertson, Prescription Druggist, Brantford, Ont.
" 20	" ..	48371	A. W. Smiley, Brantford.	3 "	75	"	.....	Headache Powders for headache, neuralgia, &c. Formula phenacetine, 5 grains; caffeine citrate, 1 grain; soda bicarbonate, 1 grain. A. W. Smiley, Druggist, Brantford.
" 21	Headache Powders	48375	F. G. Walley, Ingersoll.	3 pkg.	75	.....	Drug Trading Co., Toronto.	Dr. Low's Headache Powders. A quick and reliable specific for headache and neuralgia, etc. No. 71 The Proprietary or Patent Medicine Act. The T. Milburn Co., Ltd., Toronto., 5 866 grs. acetanilide.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
JNO. TALBOT, INSPECTOR.							
.....	Powder No. 1.....	5·7	5·4	none.	none.	48358	Curative powers claimed. Acetanilide in excess without declaration. Violates P. or P. Act.
	" " 2.....	5·1	4·8	"	"		
Directions.—Place a powder on the tongue and swallow with a draught of water. If not relieved in an hour another powder may be taken.	....	5·6	1·7	"	"	48363	Meets requirements of P. or P. Act.
Directions.—One capsule swallowed with a draught of water. If not relieved another may be taken in half an hour.	Powder No. 1.....	4·6	2·1	"	"	48366	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	4·7	2·1	"	"		
Directions.—Place dry on the tongue and swallow with a draught of water. Repeat in two hours if necessary.	" " 1....	4·8	none.	Less than 5 grains	.....	48368	Meets requirements of P. or P. Act.
	" " 2.....	3·8	"	"	.....		
Directions.—One powder. repeated in ½ an hour if necessary.	" " 1.....	5·9	"	"	.....	48371	" "
	" " 2.....	6·4	"	"	.....		
Directions.—For adults place a powder on the tongue and take a swallow of water; children under 10 years ⅓ of a powder; 10 to 15 years ½ a powder, if necessary repeat the dose in 30 minutes.	Powder No. 1.....	14·3	6·1	None.	None.	48375	Acetanilide in dangerous amount; presence declared.
	" No. 2.....	16·2	6·8	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF WINDSOR—
1911.								
April 21	Headache Powders.	48376	R. N. Thurtell, Ingersoll.	3 "	75	Vendor		Thurtells Headache Powders. Cure nervous and sick headaches, neuralgia, toothache and pain generally. Prepared by R. N. Thurtell, Ingersoll, Ont.
" 21	"	48378	Jno. E. Gayfer, Ingersoll.	3 "	30		United Drug Co., Toronto.	This sample is described like No. 46013.
" 21	Headache Wafers.	48381	G. A. Ionson. Ingersoll.	3 "	75		F. Stearns, Windsor, Ont.	This sample is described like No. 42284.
" 21	"	48384	F. G. Walley, Ingersoll.	3 "	75		"	This sample is described like No. 43203.
								DISTRICT OF MANITOBA—
1911.								
April 19	Headache Powders	43573	Wheat City Pharmacy, Brandon	3 pkg.	75	United Drug Co., Ltd., Toronto.		This sample is described like No. 46013.
" 19	Headache Wafers.	43574	"	3 "	75	The Zymole Co., New York.		This sample is described like No. 42284.
" 19	Headache Powders	43575	McCulloch Drug Store, Brandon	3 "	75	Vendor		Two-Minute Headache Powders. These headache powders are an instantaneous cure for sick or nervous headacheand neuralgia. They promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety, and all forms of depression of spirits. Caffeine, soda bicarb, acetanilid 4 grs. in each powder. McCulloch's Drug Store, Brandon.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.	No. of Sample.	Remarks and Opinions of the Chief Analyst.
Continued.							
Directions.—Place one powder on the tongue and swallow with a draught of water. Repeat in half an hour if necessary.	Powder No. 1.....	7·9	3·7	None.	None.	48376	Curative powers claimed. Acetanilide in excess. Stamped.
	" No. 2.....	9·3	4·1	" .	" .		
.....	Powder No. 1.....	5·3	None	Less than 5 grains	.....	48378	Meets requirements of P. or P. Act.
	" No. 2	5·5	" .				
.....	Powder No. 1	7·7	3·6	None.	None.	48381	Curative powers claimed. Acetanilide slightly above amount declared on label.
	" No. 2.....	8·1	3·6	"	" .		
.....	Powder No. 1.....	8·0	3·6	None.	None.	48384	Curative powers claimed. Meets requirements of P. or P. Act. Acetanilide declared.
	" No. 2.....	8·5	3·8	" .	" .		
A. C. LARIVIERE, INSPECTOR.							
.....	Powder No. 1.....	10·2	None.	Less than 5 grains	.....	43573	Meets requirements o P. or P. Act.
	" No. 2.....	7·2	" .				
.....	Powder No. 1.....	8·8	3·8	None.	None.	43574	Curative powers claimed. Acetanilide in distinct excess of amount claimed on label.
	" No. 2.....	10 1	4·3	" .	" .		
Directions.—Take one powder dry on the tongue or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1	8 0	1·6	None.	None	43575	Curative powers claimed. Meets requirements of P. or P. Act. Acetanilide declared.
	" No. 2.....	11·3	2·3	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer of Furnisher, as given by the Vendor. Manufacturer.	Furnisher.	Description as found on the label.
								DISTRICT OF MANITOBA—
1911.								
April 19	Headache Wafers.	43576	McCulloch Drug Store, Brandon	3 pkg.	75	Vendor.....	.....	Two-Minute Headache Wafers. A safe and positive relief for all forms of nervous headache or neuralgia. These wafers will be found a specific in the treatment of sick or nervous headache, neuralgia rheumatic or menstrual pains. They are of especial value in the relief of sleeplessness, absolutely free from harmful drug, such as morphia, chloral, bromides or similar nerve sedatines, caffeine, soda bicarb, acetanilid 4½ grains in each wafer, McCulloch's Drug Store, Brandon.
" 21	" ..	43577	Colcleugh & Co., Winnipeg.	3 " .	75	Nat. Drug & Chem. Co. of Canada, Ltd.	.....	"Flash Light" Headache Wafers. Safe and almost instantaneous cure for headache and neuralgia, odorless and almost tasteless, Nat. Drug & Chem. Co. of Canada, Ltd. These wafers contain antifebrin and caffeine.
" 21	Headache Powders	43578	LyonsDrugStore Winnipeg.	3 " .	75	Colcleugh & Co., Winnipeg.	.....	Colcleugh's Headache Powders. Simple and effective, Colcleugh & Co., Winnipeg, Man. *817.
" 21	Headache Wafers.	43579	Colcleugh & Co., Winnipeg.	3 "	75	Duncan Medicine Co.	.....	Dr. Duncan's Instant Cure for headache. A speedy certain and safe cure for hendaches of all origins, whether sick bilious, nervous or hysterical, also a positive relief

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Concluded.							
Directions:—Place the wafer for a few moments in a glass of water until thoroughly softened, then swallow. Another may be taken in an hour if necessary.	Powder No. 1.....	9·1	4·1	None.	None.	43576	Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	9·4	4·1	"	" .		
Directions: — Soak the wafer in water until soft (about one minute is sufficient) then place in the mouth and swallow with a draught of water. If not relieved in half to one hour, another wafer may be taken.	Powder No. 1.....	5·1	4·0	None.	None.	43577	Curative powers claimed. acetanilide declared. Meets requirements of Act.
	" " 2.....	5·5	4·0	" .	" .		
Directions:—Place a powder on the tongue and swallow with a draught of water. If not relieved in one hour another powder may be taken.	Powder No. 1.....	7·1	None.	less than 5 grs.	.....	43578	Meets requirements of P. or P. Act.
	" " 2.....	7·0	" .	" .	.....		
Directions: — Place the wafer in a glass of water until thoroughly softened, (about ½ to 1 minute) and place it in the mouth while soft swallow with a drink of water. If relief is not obtained repeat in an	Powder No. 1	7·8	None.	less than 5 grs.	...	43579	Curative powers claimed. Meets requirements of Act.
	" " 2.... ...	8·4	" .	.....	... ..		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF MANITOBA—
1911.								in neuralgia. These wafers contain caffeine, bromide of soda and phenacetine and are warranted free from antipyrin morphine, chloral, or opium, Duncan Medicine Co.
April 21	Headache Powders	43580	Colcleugh & Co., Winnipeg.	3 pkg.	75	Vendors.	.....	This sample is described like No. 43578.
" 21	Headache Wafers.	43581	W. W. McKeague, Winnipeg.	3 " .	75	Nat. Drug & Chem. Co. of Canada, Ltd.	.....	This sample is described like No. 43577.
" 21	Headache Powders	43582	" .	3 " .	75	Vendor.	....	Headache Powders. W. W. McKeague, Dispensing Chemist, Winnipeg. Stamp on.
								DISTRICT OF CALGARY—
May 4	Headache Powders	43802	T. G. Carson, Edmonton.	3 pkgs	75	Toronto Pharmacal Co., Toronto.	....	Perfect Headache Powders. Prepared expressly for T. G. Carson, Druggist, by Toronto Pharmacal Co., Toronto, Ltd., 95 Proprietory or Patent Medicine Act. These headache powders are an instantaneous cure for sick or nervous headache and neuralgia; they promptly relieve sick stomach, exhausted nerves, mental strain, sleeplessness, worry and anxiety and all forms of depression of spirits.
" 4	"	43803	A. Archibald, Edmonton...	3 "	75	United Drug Co., Ltd., Toronto.	.. ..	This sample is described like No 46013.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrine, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.							
hour but it is not advisable to take more than two wafers in succession. The wafers should be taken as early in the attack as possible.							
.....	Powder No. 1.....	7·6	None.	less than 5 grs.	.....	43580	Meets requirements of P. or P. Act.
	" " 2.....	8·5	"	"	.....		
.....	Powder No. 1.....	5·1	3·8	None.	None.	43581	Curative powers claimed. Meets requirements of P. or P. Act. acetanilide declared.
	" " 2.....	6·6	4·7	"	"		
No directions on the label.	Powder No. 1.....	9·1	5·9	None	None.	43582	Great excess of acetanilide without declaration. Protected by stamp.
	" " 2.....	9·7	6·4	"	"		
R. W. FLETCHER—INSPECTOR.							
Directions:—Take one powder dry on the tongue, or in a little water, and repeat in half an hour if not relieved. Take as early in the attack as possible. Do not repeat needlessly.	Powder No. 1.....	8·2	1·7	none.	none.	43802	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	8·3	1·8	"	"		
.....	Powder No. 1	5·7	none.	Less than 5 grains	.....	43803	Meets requirements of P. or P. Act.
	" " 2.....	5·5	"	"	.....		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF CALGARY—
1911. May 4	Headache Wafers.	43804	G. H. Graydon, Edmonton.	3 "	75	Martin, Bole & Wynne, Montreal.	.....	Instant Headache Cure. Each wafer contains 7 grains of acetanilide combined with caffein, and is warranted free from injurious drugs. G. H. Graydon, Edmonton, Alta.
"	4 Headache Wafers.	43805	D. W. MacDonald, Edmonton	3 pkg	75	Wampole & Co., Perth, Ont.	.....	McDonald's Headache Wafers. A postive relief for all forms of nervous headache or neuralgia. In the treatment of sick or nervous headache, neuralgia, rheumatism or menstrual pains, these wafers will be found a most appropriate remedy. For the relief of sleeplessness they are especially valuable. Each wafer contains acetanilide (4½ grs.) in combination with caffeine sodium bicarbonate and aromatics.
"	4 Headache Powders	43806	Edmonton Drug Co., Edmonton	3 "	75	Nat. Drug & Chem. Co., Ltd., Montreal.	.....	This sample is described like No. 42276.
"	9 "	43807	C. A. Wallace, Calgary.	3 "	75	The Toronto Pharmacal Co., Toronto	.....	This sample is described like No. 46018.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Weight of Contents of one powder, grains.	Acetanilide—Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Continued.							
Directions:—Place the wafer in a glass of water until thoroughly softened (about one half to one minute) and place it in the mouth while soft, swallow with a drink of water. If relief is not obtained, repeat in an hour, but it is not advisable to take more than two wafers in succession. The wafers should be taken as early in the attack as possible. If any depression is felt, it may be dispelled by taking two teaspoonfuls of whiskey or a glass of wine.	Powder No. 1.....	8·2	5·8	none.	none.	43804	Curative powers claimed. Acetanilide declared; and in large amount. Meets requirements of P. or P. Act.
	" " 2.....	9·8	6·8	"	"		
Directions:—For headache one wafer which may be repeated in thirty minutes if necessary. Dip the wafer in water until thoroughly soft, then place on the tongue and swallow with a little water. At least three hours should elapse before another dose is taken. A seidlitz powder or other mild laxative should be taken with the first dose. Never put wafer into mouth dry.	Powder No 1.....	11·0	4·1	none.	none.	43805	Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	11·2	4·2	"	"		
.....	Powde No. 1.....	7·1	none.	"	"	43806	Apparently contains aspirin. Meets requirements of P. or P. Act.
	" " 2.....	7·3	"	"	"		
.....	Powder No. 1.....	9·0	1·8	"	"	43807	Curative powers claimed. Meets requirements of P. or P. Act.
	" " 2.....	9·9	2·0	"	"		

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF CALGARY—
1911.								
May 9	Headache Wafers.	43808	Wendell MacLean, Calgary.	3	75	Nat. Drug & Chem. Co., Ltd., Montreal.	.....	National Headache Wafers. These wafers contain caffein and acetanilide and are warranted free from antipyrine, morphine, chloral or opium. No. 1042 Proprietary or Patent Medicine Act. The Nat. Drug & Chem. Co., of Canada, Ltd.
" 9	Headache Wafers	43809	MacFarlane & White, Calgary	3 pkg.	75	The Zymole Co., New York.	...	This Sample is described like No. 42284.
"	"	43810	Oliver Bros, Calgary	"	"	Toronto Parmacal Co., Toronto.	...	Dr. Hill's Headache Cure. These wafers contain nothing injurious and are guarranted free from antipyrin, morphine, chloral or opium, 668. The Proprietary or Patent Medicine Act, mfy. by Oliver Bros. Druggists, Calgary Alta.
"	"	43811	Nat. Drug of Chem. Co. Calgary	"	"	Nat. Drug & Chem. Co., Toronto.	.....	This Sample is described like No. 42276.
								DISTRICT OF NELSON—
May 3	Headache Wafers	48419	Poole Drug Co., Nelson.	3 pkgs	75	Stearus & Co., Windor, Ont.	.....	This Sample is described like No. 42284.

HEADACHE POWDERS.

Directions as found found on the label.	Remarks.	Results of Analysis. Weights of Contents of one powder, grains.	Acetanilide-Anti-febrin, grains.	Phenacetin, grains.	Phenazone=Antipyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.							
Directions:—Place the wafer in a glass of water until thoroughly softened, then swallow with a little water. Another may be taken in an hour if the first has not given sufficient relief.	Powder No. 1.....	15·5	5·9	"	"	43808	Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	15·5	6·0	"	"		
....	Powder No. 1.....	8·9	5·8	None.	None.	43809	Curative powers claimed. Acetanilide declared, meets P. or P. Act.
	" " 2.....	8·3	3·6	"	"		
Directions:—Place the wafer in a glass of water until thoroughly softened and place in the mouth while soft swallow with a drink of water, repeat in an hour if necessary, then every 2 or 3 hours.	Powder No. 1.....	12·6	2·3	None.	None.	43810	Curative powers claimed. Meets requirements of P. or P Act.
	" " 2.....	11·5	2·2	"	"		
....	Powder No. 1.....	8·0	None.	None.	None.	43811	Apparently contains aspirin. Meets requirements of P or P. Act.
....	" " 2.....	6·7	"	"	"		

THOS. PARKER—INSPECTOR.

.....	Powder No. 1.....	8·9	4·1	None.	None.	48419	Curative powers claimed. Acetanilide declared. Meets P. or P. Act.
....	" " 2.....	9·4	4·0	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF VANCOUVER—
April 21	Headache Powders	38135	Burns & Cairns, Vancouver.	3 pks	75	Orangeine Chem. Works Windsor, O.	.....	Orangeine the magic pain allayer promptly relieves, soothes, strengthens, rebuilds and permanently benefits. Chemically pure acetanilid 2·4 grs. Soda Bicarb, Caffeine and Homeopathic, trituration of mandrake. Blue flag, and nux vomica 2·6 grs. Total 5 grs. Reg. No. 37. The Proprietary or Patent Medicine Act, relieves all kinds of pain no difference where located or from what cause. Prepared by The Orangeine Chemical Work, Windsor, Ont., P. A. Ackman, Proprietor.
" 21	Headache Wafers.	38136	Campbell Burns Drug Co., Vancouver.	3 pkg.	75	Nat. Drug Co.	.....	This sample is described like No. 42276.
" 21	" ..	38137	Owl Drug Store, Vancouver.	3 " ..	75	The Zymole Co., New York.	..	This sample is described like No. 42284.
" 21	" ..	38138	Vancouver Drug Co., Vancouver	3 ..	75	Manchester Drug Co., Toronto	...	Reid's Headache Wafers. A safe and positive relief for all forms of nervous headache or neuralgia. These wafers will be found a specific in the treatment of sick or nervous headache, neuralgia, rheumatism or menstrual pains. They are of especial value in the relief of sleeplessness, are absolutely free from harmful drugs, such as morphine, chloral,

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Adetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Anti-pyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. F. POWER—INSPECTOR.							
Directions:—For Asthma Colic, Cholera Morbus and painful menstruation take an orangeine powder disolved in a teacup half full of hot water, and repeat in a quarter or half hour, if necessary after, which a powder dry upon the tongue, or dissolved in hot or cold water, every four or five hours will suffice. For headache, neuralgia, rheumatism, gout. False pains, after pains and sciatica. Take an Orangeine Powder either dry upon the tongue, with a swallow of water or dissolved in hot or cold water, and repeat in a quarter or half hour if necessary, after which a dose every four or five hours will be sufficient.	The following is printed on a circular enclosed in the box. Orangeine is an infallible cure for a geat variety of painful and serious ailments and that one or two powders bring immediate relief without the slightest results of reaction or any other bad effect so often experienced from drugs and doses.	No. 1 5·1 " 2 5·1	2·5 2·5	None. "	None. "	38135	Excessive claims made as a cure. Meets requirements of P. or P. Act, acetanilide declared.
.....	Powder No. 1..... " " 2.....	5·1 5·0	none. "	none. "	none. "	38136	Contains aspirin. Meets requirements of P. or P. Act.
.....	" " 1..... " " 2. . .	8·2 6·9	3·8 3·2	" "	" "	38137	Curative powers claimed. Meets requirements of P. or P. Act. Acetanilide declared.
Directions.—Place the wafer for a few moments in a glass of water until thoroughly softened, then swallow. Another may be taken in an hour if necessary.	" " 1. .... " " 2.....	9·6 11·3	1·9 2·1	" "	" "	38138	Meets requirements of P. or P. Act.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF VANCOUVER—
1911.								
								bromides and similar nerve sedatives. 1560 Proprietary or Patent Medicine Act. Manchester Drug Co., Toronto.
April 21	Headache Powders.	38139	Georgia Pharmacy, Vancouver.	3 pkg.	75	L. G. Henderson, Vancouver.	.....	Gilmour's Headache and Neuralgia Powders. No opiates or harmful drugs in these powders. Leslie G. Henderson, Vancouver, B.C. No. 809.
" 21	" ..	38140	Red Raven Drug Store, Vancouver.	3 " ..	75	McDowell, Atkins & Watson, Vancouver.	.....	Flint's Neuralgia and Headache Powders, a prompt and harmless cure for all forms of nervous neuralgia or sick headache. These powders contain no opiates or anything in the least injurious. No. 816 The Proprietary or Patent Medicine Act. The McDowell, Atkins, Watson Co., Ltd., Vancouver, B.C.
" 21	" .	38141	Harrison's Drug Store, Vancouver.	3 " ..	75	T. Milburn Co., Toronto.	.....	This sample is described like No. 42281. Stamp on.
" 21	" ..	38142	Law's Drug Store, Vancouver.	3 " ..	75	Baiss Bros. & Stevenson, Ltd., London, Eng.	.....	Headache Powders affords relief in a few minutes. Baiss Bros. & Stevenson, Ltd., Manufacturing Chemists, London, Eng. Stamp on.
" 21	Headache Tablets.	38143	Harrisons Drug Store, Vancouver.	3 pkg.	75	Dr. Shoop, Racine, U.S.A.	.....	Dr. Shoop 20 Minute Headache Tablets. Certain relief for neuralgia or headache in 20 minutes. Dr. Shoop, Racine U.S., Stamp on.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.							
Directions.—Place dry upon the tongue and wash down with a small draught of water. A second powder may be taken in half an hour if necessary.	Powder No. 1.....	10·6	none.	Less than 5 grains	.....	38139	Meets requirements of P. or P. Act.
	" " 2.....	9·2	"	"	.....		
Directions.—One to be placed dry upon the tongue and washed down with a small draught of water. May be repeated in an hour if required.	" " 1.....	6·2	3·5	none.	none.	38140	Curative powers claimed. Acetanilide in excess. Violates terms of P. or P. Act.
	" " 2.....	6·1	3·3	"	"		
....	" " 1.....	14·4	6·1	"	"	38141	Curative properties claimed. Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	14·3	6·1	"	"		
Directions.—Place the wafer for a few moments in a glass of water until thoroughly softened, then swallow. Another may be taken in an hour if the first has not given sufficient relief. A seidlitz powder frequently gives valuable assistance.	" " 1.....	10·0	2·4	.....		38142	Meets requirements of P. or P. Act, and bears stamp.
	" " 2.....	8·9	2·5	.....			
Directions.—Dissolve one tablet slowly upon the tongue. If not entirely relieved within twenty minutes repeat the dose. Two doses will be sufficient in all cases.	Powder No. 1.....	21·0	None.	Less than 5 grains	.....	38143	Phenacetin. Meets requirements of P. or P. Act.
	" No. 2.....	21·0	"				

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF VANCOUVER—
1911.								
May 21	Headache Wafers.	38144	Central Drug Store (C. D. Gillanders) Vancouver.	3 pkg.	75	Warnpole & Co., Perth, Ont.	.....	Headache Wafers. A positive relief for all forms and nervous headache or neuralgia. In the treatment of sick or nervous headache. Neuralgia, rheumatism or menstrual pains, these wafers will be found a most appropriate remedy. For the relief of sleeplessness they are especially valuable. Composition: acetanilide 4½ grs. in each wafer, caffeine and sodium bicarbonate and aromatics. C. D. Gillanders, Vancouver, B.C.
								DISTRICT OF VICTORIA—
May 12	Headache Wafers.	47585	Wm. Jackson & Co., Victoria, B.C.	3 pkg.	75	The Zymole, Co., New York.	.....	This sample is described like No. 42284.
" 12	" ..	47586	" ..	3 "	75	Nat. Drug & Chem. Co., Hamilton, Ont.	.....	Imperial Headache Wafers No. 585. The Proprietary or Patent Medicine Act. These wafers contain acetanilide and caffein. Sold by Wm. Jackson & Co., Druggists, Victoria, B.C.
" 12	Headache Powders	47587	Hall & Co., Victoria, B.C.	3 "	75	Canadian Phamacal Ass'n., Toronto.	.....	Standard Headache Powders. A simple harmless and almost instantaneous relief for headache from any Cause. No. 90. The Proprietary or Patent Medicine Act. These powders contain acetanilide combined with caffeine. Prepared by the Canadian Pharmacal Ass'n., Toronto.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weight of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.							
Directions.—For headache one wafer which may be repeated in thirty minutes if necessary. Dip the wafer in water until throughly soft, then place on the tongue and swallow with a little water. At least three hours should elapse before another dose is taken. A Seidlitz powder or other mild laxative should be taken with the first dose. Never put wafer into the mouth dry.	Powder No. 1.....	10·4	3·8	None.	None.	38144	Acetanilide declared. Meets requirements of P. or P. Act.
	" No. 2.....	12·9	4·8	" .	" .		
D. O'SULLIVAN—INSPECTOR.							
....	Powder No. 1.....	7·6	3·5	None.	None.	47585	Cnrative powers claimed. Meets reqnirements of P. or P. Act. Acetanilide declared.
	" No. 2.....	7·9	3·6	" .	" .		
Directions.—Soak the wafer in water until it becomes soft, then place in the mouth and swallow with a drink of water. Repeat the dose in half an hour if necessary.	Powder No. 1.....	5·8	4·3	None	None.	47586	Acetanilide declared. Meets requirements of P. or P. Act.
	" No. 2.....	7·0	5·7	" .	" .		
Directions.—Place a powder on the tongue and swallow with a draught of water. If not relie- in half an hour take another powder. Do not repeat again for four hours.	Powder No. 1.....	5·4	2·1	None.	None.	47587	Acetanilide declared Meets requirements of Act.
	" No. 2.....	5·4	2·1	" .	" .		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Price. Quantity.	Price. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Description as found on the label.
								DISTRICT OF VICTORIA—
1911.								
May	12 Headache Wafers.	47588	Hall & Co., Victoria, B.C.	[illegible]	75	The Chemists Co., Ltd., Hamilton.	..	This sample is described like No. 43210.
"	12 Headache Powders	47589	Geo. A. Fraser, [illegible] Victoria, B.C.		75	The Hoffman Drug Co., Bridgeburg, Ont.	.....	This sample is described like No. 36392.
"	12 Headache Wafers.	47590	G. A. Fraser, [illegible] Victoria, B.C.		75	Gibson, Howell & Co., Philadelphia, Pa.	.....	Gibson's Headache Wafers. A positive relief for all forms of nervous headache or neuralgia. In the treatment of sick or nervous headache, neuralgia rheumatism or menstrual pains. These wafers be found a most appropriate remedy. For the relief of sleeplessness they are especially valuable composition; acetanilide 4½ grs. in each powder caffeine, sodium, bicarbonate and aromatic powder. They are guaranteed to be absolutely free from morphine, opium or cocoaine. Gibson, Howell & Co., Mfg. Chemists. Philadelphia, Pa., U.S.A.
"	12 " ..	47591	D. E. Campbell, [illegible] Victoria, B.C.		75	Vendor....	.....	Campbell's Headache Wafers. An immediate cure for headache and neuralgia. A speedy certain and safe cure for headaches of all origins, whether sick, bilious, nervous or hysterical, also a positive relief in neuralgia. D. E. Campbell, Family Chemist,

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis. Weights of Contents of one powder, grains.	Acetanilide—Antifebrin, grains.	Phenacetin, grains.	Phenazone—Antipyrin, grains.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.							
.....	Powder No. 1.....	4·7	2·2	None.	None.	47588	Curative powers claimed. Meets requirements of P. or P. Act. Acetanilide declared.
	" No. 2.....	4·9	2·3	"	"		
.....	Powder No. 1.....	12·1	5·0	None.	None.	47589	Curative powers claimed. Acetanilide dedeclared.
	" No. 2.....	10·9	4·4	"	"		
Directions:—For Headache, one wafer which may be repeated in thirty minutes if necessary. Dip the wafer in water until thorougly soft, then place on the tongue and swallow with a little water, at least three hours should elapse before another dose is taken. A seidlitz powder or other mild laxative should be taken with the first dose. Never put wafer into the mouth dry.	No. 1.....	15·1	5·6	None.	None.	47590	Acetanilide declared, but present in excess of amount named. Meets requirements of P. or P. Act.
	" 2.....	15·1	5·6	"	"		
Directions:—Soften the wafer by placing it for a moment in a little water, then swallow with a drink of water. If relief is not obtained, a second wafer may be taken half an hour or an hour later.	No. 1.....	10·1	1·8	None.	None.	47591	Curative powders claimed. Meets requirements of the P. or P. Act.
	" 2.....	10·0	1·8	"	"		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Description as found on the label.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF VICTORIA—
1911.								
								Victoria, B.C. No. 1109 The Proprietary or Patent Medicine Act.
May 13	Headache Wafers.	47592	F. J. Williams. Victoria, B.C.	3 pkg.	75	.....	Nat. Drug & Chem. Co., Victoria, B.C.	This sample is described like No. 43808.
" 13	"	47593	Nat. Drug & Chem. Co., Ltd., Victoria.	3 "	75	Vendors	.....	This sample is described like No. 42276.
" 13	Headache Powders	47594	"	3 "	75	The T. Milburn Co., Ltd., Toronto.	.....	This sample is described like No. 42281.

HEADACHE POWDERS.

Directions for use as found on the label.	Remarks.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analysis.
		Weights of Contents of one powder, grains.	Acetanilide = Anti-febrin, grains.	Phenacetin, grains.	Phenazone = Antipyrin, grains.		
Concluded.							
....	Powder No. 1.....	16·8	6·3	None.	None.	47592	Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	17·3	6·6	" .	" .		
....	Powder No. 1.....	6·4	None.	None.	None.	47593	Contains aspirin. Meets requirements of Act.
	" " 2.....	7·4	" .	" .	" .		
....	Powder No. 1.....	14·3	6·5	.....	.....	47594	Claims curative properties. Acetanilide declared. Meets requirements of P. or P. Act.
	" " 2.....	13·8	6·3	.....	... .		

APPENDIX G.

BULLETIN No. 231—STOCK FEED—BRAN, SHORTS, CHOP FEED.

OTTAWA, February 2, 1912.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to submit herewith a report upon two hundred and ninety-eight (298) samples of feeding stuffs or stock feeds, purchased throughout the Dominion in April, May and June of last year. This is the first systematic inspection of these articles, made under the Commercial Feeding Stuffs Act of 1909.

It is to be observed that the Act in question classifies feeding stuffs as follows:—

I.—Those which may be sold without registration.

These are of two subclasses:—

1. Such as, from their nature, may be appraised as well or better by the buyer, than by the officials of this department. This subclass includes hay, straw, roots, wet brewers' grains.
2. Such as are sold under names specifically defining the article, and capable of exact standardization under section 26 of the Adulteration Act.

II.—Those which may only be sold when duly registered.

The present inspection has regard only to such feeds as fall under subclass 2, of class 1, and comprises bran, shorts or middlings and chop feeds.

These feeding stuffs are defined by an Order in Council, dated May 1, 1911 (published as Circular G. 968), as follows:—

23
1 GOD.

G. 968.
AMENDING G. 932.
10,000.

DEPARTMENT OF INLAND REVENUE,
OTTAWA, May 3, 1911.

MEMORANDUM.

Under the authority of an Order of His Excellency in Council, bearing date the first day of May, instant, paragraphs 13, 14 and 15 of the Order in Council of the 29th October, 1910, establishing standards of quality for grain products, have been cancelled and the following substituted in lieu thereof:—

13. BRAN is a product of the milling of wheat or other grain, and contains not less than fourteen (14) per cent of proteids, not less than three (3) per cent of fat, not more than ten (10) per cent of crude fibre and must be free from vital seeds of any of the noxious weeds defined by the Governor in Council under 'The Seed Control Act.'

14. SHORTS OR MIDDLINGS is the coarser material sifted out from the products of a second treatment of the grain by crushing the coarsely ground material that is sifted out from the bran after the first grinding; and contains not less than fifteen (15) per cent of proteids, not less than four (4) per cent of fat, not more than eight

(8) per cent of crude fibre and must be free from vital seeds of any of the noxious weeds defined by the Governor in Council under 'The Seed Control Act.'

15. CHOP-FEED is whole grain of one or more kinds more or less finely ground, and contains not less than ten (10) per cent of proteids not less than two (2) per cent of fat, not more than ten (10) per cent of crude fibre and must be free from vital seeds of any of the noxious weeds defined by the Governor in Council under 'The Seed Control Act.'

These amended standards will come into force on the seventh day of June proximo.

W. J. GERALD,
Deputy Minister.

Definitions of bran, shorts and chop feed were made legal by Order in Council of October 29, 1910, taking effect December 5, 1910. The above quoted Order in Council differs only from the earlier one in introducing the clause 'And must be free from vital seeds of any of the noxious weeds, defined by the Governor in Council under the Seed Control Act.'

While the Feeding Stuffs Act provides for the sale of bran, shorts and chop feeds without registration, it does not prevent the registration of these feeds by any manufacturer who chooses to take necessary steps to that end. Nothing sold without registration is legally recognized as bran, shorts or chop, which does not reach the minimum of value legally established for its species; but there is nothing to prevent a producer who knows his goods to be better or worse than the legal minimum, from registering such goods, and publishing with them a guarantee of stated values. In this case, however, the producer must hold himself responsible for the quality of such guaranteed feeds; and an article of bran (for example) which would be quite legal if offered simply as bran, may be judged as adulterated if it fail to meet a higher standard, set and guaranteed by the manufacturer.

The Feeding Stuffs Act of 1909 was based upon experience gained through repeated inspections of cattle feeds as found on our markets. The main facts of the case will be found recorded in Bulletins 116 (1906), 156 (1908), and 191 (1909). The standards fixed for the classes of feeds, now particularly under consideration, were consequent upon the study of 545 samples of bran, shorts and chop feed reported in Bulletin No. 191.

BRAN.

For this article the following minimum values are legalized:—

Fat—Not less than 3 per cent.
Proteids—Not less than 14 per cent.
Fibre—Not more than 10 per cent.

That these limits are reasonable is fully established by the result of the present inspection.

Seventy-seven (77) samples, out of a total of 78 samples purchased as bran, are found to be legally genuine as far as nutritive value goes, and their average values are as follows:—

	Per cent.
Fat	4·29
Proteids	15·17
Fibre	8·60

It will be noted that the Act (section 15) provides that 'A deficiency of one per cent of the protein or fat, or an excess of two per cent of fibre, shall not be considered as evidence of fraudulent intent, if the total value of the feeding stuff, in nutritive materials, is substantially equivalent to the guaranteed statement.'

One sample (No. 36946) is low in proteids as well as high in fibre, and must be regarded as adulterated under the Act.

Two samples of bran, 48418 and 40655 are contaminated with weed seeds.

SHORTS; MIDDLINGS.

These terms are considered as equivalent for the purpose of defining legal minimum values. These values are fixed by Order in Council as follows:—

Fat	4 per cent	minimum.
Proteids	15 " "	"
Fibre	8 " "	maximum.

Seventy-three (73) samples of the present collection are sold as shorts, and sixty-eight (68) samples as middlings.

There seems to be much ambiguity among millers and dealers as to the application of these terms. This fact was pointed out in Bulletin No. 191. Table III. (pp. 42 to 46 of Bull. 191) exhibits a great range of values for 258 samples purchased as shorts or middlings in 1909; but the extremes of value do not indicate differences in the application of the terms such as would warrant shorts being defined separately from middlings.

Considering the whole 258 samples in question, the record is as follows:—

	Maximum.	Minimum.	Mean.
Moisture	13·56	6·45	10·54
Fat	6·88	0·95	4·04
Proteids	18·93	10·00	15·25
Crude fibre	12·15	0·22	5·63
Ash	5·74	0·88	3·63
Carbohydrates	74·18	51·04	60·55

When the samples sold as shorts in 1909 (150 in number) are considered by themselves, the results are as follows:—

	Fat.	Proteids.	Fibre.
Means	4·93	15·63	5·88
Maxima	6·53	18·93	11·90
Minima	1·60	10·00	1·06

One hundred and six (106) samples sold as middlings in 1909, give the following results:—

	Fat.	Proteids.	Fibre.
Means	3·67	14·77	4·96
Maxima	6·88	18·00	12·15
Minima	0·95	11·19	0·22

A considerable number of samples, which appear to answer a description of low grade flour, were found in the above collection; but these were supplied indiscriminate as shorts or middlings, as indicated by the maxima for fibre and for fat, though most of them were sold as middlings.

In order to discover whether the present collection indicates any accepted distinction between the terms, I have collated the results for 72 out of 73 samples sold as shorts, and for 54 out of 68 samples sold as middlings, being in each case the number of samples respectively, which meet the requirements of legal definition.

Seventy-two (72) samples of shorts give results as follows:—

SHORTS

	Fat.	Proteids.	Fibre.
Means	4·65	16·20	6·3
Maxima	6·48	18·46	8·0
Minima	3·44	14·00	3·9

Fifty-four (54) samples of middlings give the following results:—

	Fat.	Proteids.	Fibre.
Means	4·47	15·95	5·2
Maxima	6·26	18·02	8·1
Minima	3·02	14·13	1·4

The results appear to justify the conclusion that the article sold as shorts is not substantially different from the article sold as middlings; and this conclusion is corroborated by the expressed opinion of many millers, in answer to questions by our inspectors. At the same time it is to be noted that samples characterized by very low fibre, low fat and a high starch content (indicating flour), are usually sold as middlings, rather than as shorts.

Examples of this are found in the following:—

Number	Fat.	Proteids.	Fibre.	
46084	2·16	10·37	1·5	low in proteids and fibre.
36956	1·55	12·73	0·7	" fat and fibre.
43271	2·08	12·51	0·8	" "
43281	2·32	13·26	1·3	" "
47413	2·66	15·11	1·9	low in fat and fibre.
47414	3·16	12·56	1·8	" proteids and fibre.
38185	2·66	11·42	0·9	" " fat and fibre.
38189	2·02	12·03	0·5	" " "
47611	2·37	14·61	1·1	" fat and fibre.
47618	1·98	13.04	0·8	" "
47621	2·28	12·86	1·0	" "

Feeds of this kind should be sold as feed-flour; or by some name which distinguished them from legal shorts or middlings. While they possess considerable value for feeding purposes, they must be regarded as adulterated under the Act when offered as shorts or middlings. Their low fibre content is an advantage from the point of view of nutritive value, since this is replaced by starch in amount equivalent to the difference between the legal maximum for fibre (8 per cent) and the actual fibre present.

I am convinced that in none of the above listed samples is there any evidence of intended fraud. The irregularity is apparently due to ignorance of legal requirements for shorts (middlings), and a mistaken idea that a low grade flour is even better value, than middlings as usually understood. I feel justified in recommending that for this first inspection under the Feeding Stuffs Act, leniency be exercised towards the vendors, and their attention called, to the requirements of the Act.

The results for shorts and middlings are thus summarized:—

	Sold as	
	Shorts.	Middlings.
Comply with legal requirements	72	54
Misnamed feed flour	0	11
Passed, as close to limit value	1	2
Adulterated under the Act	0	1
	73	68
Total	141	

None of the samples of this class have been found to contain vital weed seeds.

CHOP FEEDS

Seventy-eight (78) samples of the present collection are sold under this name. The legal standard for chop-feed is as follows:—

Fat	2 per cent	(minimum).
Proteids	10 " "	"
Fibre	10 " "	(maximum).

Sixty-two (62) samples meet these requirements and are judged as genuine so far as nutritive value is concerned. Six other samples are so near to standard values that I have advised them to be passed, in view of the fact that this is the first inspection under the Act of 1909.

Six samples are so markedly below the standard values that they must be classed as adulterated under the Act.

These are the following:—

Number.	Deficiency in		Excess of Fibre.
	Fat.	Proteids.	
47617	0·41	3·19	17·0
47615		3·48	8·8
48426		2·95	11·6
43859	0·73	4·27	18·0
43295			8·6
38979	0·24	3·13	9·2

Four samples, which meet requirements as regards feeding value, are adulterated by containing vital weed seeds.

I have pleasure in acknowledging the courtesy of the Department of Agriculture in corroborating the presence of vital weed seeds in the following samples:—

Bran	No. 40655—	160	seeds per lb.
	" 48418—	160	"
Chop feed	" 46620—	320	"
	" 46077—	2,464	"
	" 38978—	32	"
	" 40669—	4	"
	" 40670—	64	"

In applying the clause, 'And must be free from vital seeds of any of the noxious weeds, &c., I have interpreted this to mean not more than five seeds per pound. There is a practical limit to the possibility of removing weed seeds from grain. In interpreting the Seed Control Act, it is, I believe, the accepted rule to allow one seed per pound, where the grain is used for seeding purposes. It seems reasonable to permit a larger limit of error when the grain is used for feeding purposes.

No. 48043 is a sample of cotton seed meal, which was obtained through an error. The brand is legally registered and meets the requirements of its guarantee.

The following is a synopsis of the results of this inspection:—

——	Bran.	Shorts (Middlings.)	Chop.
Genuine	74	126	62
Incorrectly named	0	11	6
Passed as close to limit values	1	3	6
Adulterated as below values	1	1	6
" as containing vital weed seeds	2	0	4
	78	141	78

	297 samples.
Cotton seed meal	1 "
Total	298 "

I beg to recommend the publication of this report as Bulletin No. 231.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF NOVA SCOTIA—
1911.								
May 10	Stock Feeds.	46601	I. B. Shaffner & Co., Halifax, N.S.	5 lbs.	Nil.	Peterboro Cereal Co., Peterboro, Ont.	Manufacturers.	Bran.
" 11	"	46602	B. O. Bishop, Dartmouth, N.S.	5 "	6	Ogilvie Milling Co., Montreal.	Wentzell's Ltd., Halifax, N.S.	"
" 11		46603	Wentzell's, Ltd., Halifax, N.S.	5 "	5		Manufacturers.	
" 12		46604	J. S. Cashen & Sons, Halifax, N.S.	5 "	10	Campbell Milling Co., Toronto.	"	"
" 19		46605	C. B. McMullen, Truro, N.S.	5 "	N	Wolvert'n Milling Co., Wolverton, Ont.	"	"
" 12		46606	J. S. Cashen & Son, Halifax, N.S.	5 "	10	Campbell Milling Co., Toronto.	"	Shorts.
" 18		46607	F. A. Shaw, Halifax, N.S.	5 "	7	"	F W Fraser Halifax, N.S.	"
" 18		46608	F. W. Fraser, Halifax, N.S.	5 "	7	"	Manufacturers.	"
" 18		46609	S. C. Thompson, Halifax, N.S.	5 "	7	"	W. Muir & Son, Halifax.	"
" 22		46610	A. & W. Smith & Co., Halifax, N.S.	5 "	Nil.	Quaker Oats Co., Peterboro, Ont.	Manufacturers.	" *(Bell Cow Brand.)*
" 11		46611	I. B. Shaffner & Co., Halifax, N.S.	5 "	"	Canada Flour Mills Co., St. Catharines.	"	Middlings
" 11		46612	Nova Scotia Milling Co., Dartmouth, N.S.	5 "	"	Canada Cereal Co., Toronto.	"	"
" 11		46613	Wentzell's, Ltd., Dartmouth, N.S.	5 "	5	Jno. Campbell Co., St. Thomas, Ont.	"	"
" 16		46614	C. B. McMullen, Truro N.S.	5 "	Nil.	Wolvert'n Milling Co., Wolverton, Ont.	"	"
" 22		46615	H. W. Brown, Halifax, N.S.	5 "	8	Unknown.	J. A. Farquhar & Co., Halifax.	"
" 11		46616	Nova Scotia Milling Co., Dartmouth, N.S.	5 "	Nil.	G. Carter & Son, St. Mary's, Ont.	Manufacturers.	Chop Feed. (Barley, Oats and Corn.)
" 11		46617	A. Gunn & Co., Halifax, N.S.	5 "	"	Vendors		O. & B. Chops.
" 16		46618	S. L. Cross, Kentville, N.S.	5 "	"	Ogilvie Milling Co., Montreal.	Manufacturers.	Wheat moulee
" 16		46619	R. E. Harris & Son, Wolfville, N.S.	5 "	"	"	"	Moulee
" 17		46620	Shand Bros., Windsor, N.S.	5 "	"	Tillson's, Tillsonburg, Ont.	"	B. O. C. Crushed Grain.

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
R. J. WAUGH—INSPECTOR.									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
...	.....	....	4·43	.....	15·61	9·6	Bran tissues, no weeds.	46601	Genuine.
.....	....	.....	4·79	.....	15·49	9·2	"	46602	"
.....	.....	...	4·59	.....	16·76	7·8	"	46603	"
.....	....	.....	4·61	.....	16·10	8·0	"	46604	"
.....	....	.....	4·33	.....	14·52	8 7	"	46605	"
.....	.....	.....	4·52	.....	17·59	7·4	As claimed, no weeds..	46606	"
.....	....	.....	4·92	.....	16·80	7·3	"	46607	"
.....	.....	.....	5·08	.....	14·83	7·9	"	46608	"
...	.....	.....	4·08	.....	16·06	7·2	As claimed, no weed seeds.	47609	"
.....	.....	.....	4·92	.....	17·76	7·4	"	46610	"
.....	.....	....	4·08	.....	16·49	6·4	"	46611	"
.....	.....	.....	3·84	....	15·14	5·2	"	46612	"
.....	.....	.....	4·08	.....	15·40	6·0	"	46613	"
.....	.....	.....	4·80	.....	15·92	6·3	"	46614	"
.....	.....	.....	4·08	.....	14·96	5·1	"	46615	"
.....	..	.....	2·78	...	12·25	6·5	"	46616	"
.....	.....	.....	4·10	.....	9·63	4·2	"	46617	"
....	.....	.....	4·42	.....	15·22	5·0	"	46618	"
.....	.....	.....	4·10	.....	15·22	3·7	"	46619	"
.....	.....	...	3·54	.....	10·89	4·7	Weed seeds.....	46620	Adulterated with weed seeds, 320 seeds per lb.

DISTRICT OF PRINCE EDWARD ISLAND—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).
1911.								
May 12	Stock Feeds.	46066	P.E.I. Hay & Produce Co., Ch'town, P.E.I	5 lbs.	Nil.	Ogilvier, Montreal.		Bran
" 15	"	067	A. Horne & Co., Ch'town, P.E.I	5 "	"	Canadian Cereal & Milling Co., Toronto.		"
" 23	"		Frank Gates, Ch'town Royalty west, P. E.I.	5 "	"	Gates Mills, Ch'town Royalty west, P. E.I.		"
" 23	"	46069	John Andrews, Ch'town Royalty west, P. E.I.	5 "	"	Andrews Mills, Ch'town Royalty east, P. E.I.		"
" 26	"	46070	F. L. McNutt	5 "	10		A. Horne & Co., Charlottetown, P.E.I.	"
" 12	"	46076	P.E.I. Hay & Produce Co., Ch'town, P.E.I	5 "	Nil.	Quaker Oats Co., Peterboro, Ont.		Chop Feed
" 12	"	46077	A. Horne & Co., Ch'town, P.E.I	5 "	"	The Campbell Milling Co., W. Toronto.		"
" 15	"	46078	A. Horne & Co., Ch'town, P.E.I	5 "	"	Atlantic Milling Co., Pictou, N.S.		"
" 15	"	46079	Auld Bros., Ch'town, P.E.I.	5 "	"	Quaker Oats Co., Peterboro.		" *(Schumaker).*
" 15	"	46080	Auld Bros., Ch'town, P.E.I.	5 "	"	The Tillson Co., Tillsonburg.		Chop Feed
" 12	"	46081	P.E.I. Hay & Produce Co., Ch'town, P.E.I	5 "	"	T. H. Taylor Mfg. Co., Ch'tham, Ont		Middlings
" 15	"	46082	A. Horne & Co., Ch'town, P.E.I	5 "	"	The Campbell Milling Co., Toronto.		"
" 23	"	46083	Frank Gates, Ch'town Royalty west, P. E.I.	5 "	"	Gates Mills, Ch'town Royalty west, P. E.I.		"
" 23	"	46084	John Andrews, Ch'town Royalty east, P. E.I.	5 "	"	Andrews Mills, Ch'town Royalty east, P. E.I.		"
" 26	"	46085	R. E. Mutch & Co., Ch'town, P.E.I.	5 "	"	The Woodburn Milling Co., Glencoe, Ont.		"

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
WM. A. WEEKS—INSPECTOR.									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	.....	4·44	.....	17·06	7·4	As claimed, no seeds..	46066	Genuine.
.....	.....	.....	4·10	.....	13·96	8·4	" ..	46067	"
.....	.....	.....	4·36	.....	14·31	6·1	" ..	46068	"
.....	.....	.....	4·24	.....	13·78	6·8	" .	46069	"
.....	.....	.....	3 52	.....	14·48	8·4	" ..	46070	"
.....	.....	.....	2·70	.....	9·55	6·6	" ..	46076	"
.....	.....	.....	3·76	.....	11·46	8·0	Weed seeds.....	46077	Adulterated with weed seeds, 2,464 seeds per lb.
.....	.....	.....	2·22	.....	9 65	1·8	As claimed, no seeds..	46078	Genuine.
4·00	10·50	10·50	2·60	.....	10·56	9·2	" ..	46079	"
.....	.....	.....	5·04	.....	15·44	16·4	" ..	46080	Excess fibre, high in fat and proteids. Pass.
.....	.....	.....	4·06	.....	15·09	7·6	As claimed, no weed seeds.	46081	Genuine.
.....	.....	.....	4·46	.....	14·92	7·1	" ..	46082	"
.....	.....	.....	.....	3·30	13·60	2·4	" ..	46083	Below standard in proteids. Pass.
.....	.....	.....	.....	2·16	11·20	1·5	Flour, no weed seeds..	46084	Low in fat and in proteids. Should be sold as feed flour.
.....	.....	.....	.....	4·13	14·70	5·1	As claimed, no weed seeds.	46085	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion.)
								DISTRICT OF NEW BRUNSWICK—
1911.								
May 11	Stock Feeds.	45499	C. H. Peters, Sons, Ltd., St. John, N.B.	5 lbs.	10	The Quaker Oats Co., Peterboro, Ont.		Bran.
" 11	"	45500	L. C. Prime, St. John, N.B.	5 "	10	Cereal & Milling Co., Ltd.		"
" 16	"	45501	John McKnight, Fredericton, N.B.	5 "	10	Campbell Milling Co., Toronto, Ont.		" *(Bull Rush Brand.)*
" 25	"	45502	A. F. Randolph & Sons, Chatham, N.B.	5 "	15	Ogilvie Milling Co., Montreal		Bran, *(Ogilvie's.)*
" 25	"	45503	J. B. Snowball Co., Ltd., Chatham, N.B.	5 "	10	S. J. Cherry, Preston, Ont.		Bran Cherry's.
" 16	"	45504	G. T. Whelpley Estate, Fredericton, N.B.	5 "	15	Western Canada Flour Mills Co., Ltd., Winnipeg.		Shorts, *(Registration No. 68.)*
" 16	"	45505	F. H. Everett, Fredericton, N.B.	5 "	10	Maple Leaf Milling Co., Toronto.		Shorts.
" 23	"	45506	J. H. Steeves, Moncton, N.B.	5 "	15	Ogilvie Flour Mills, Montreal.		"
" 23	"	45507	Reed Co., Ltd., Moncton, N.B.	5 "	15	Western Flour Mills Co., Ltd.		Middlings, *(Registered No. 64, Analysis on bags.)*
" 25	"	45508	Jno. McLaggan, Chatham, N.B.	5 "	15	The Jno. Campbell Co., Ltd., St. Thomas, Ont.		Middlings, *(Campbell's.)*
" 2	"	45509	James Collins, St. John, N.B.	5 "	10	Lake of the Woods Milling Co., Montreal.		Middlings.
" 11	"	45510	C. H. Peters Sons, St. John, N.B.	5 "	10	The Quaker Oats Co., Peterboro, Ont.		"
" 11	"	45511	J. Harrison & Co., St. John, N.B.	5 "	Nil.	Maple Leaf Flour Milling Co., Toronto.		"
" 19	"	45512	J. W. McPhail, Perth, N.B.	5 "	15	The Ogilvie Flour Mills Co., Ltd., Montreal.		" *(Ogilvie's.)*
" 23	"	45513	Toombs & Son, Moncton, N.B.	5 "	15	Canadian Cereal & Milling Co., Ltd., Toronto.		Middlings, *(Tillsons Choice.)*
" 2	"	45514	L. C. Prime & Co., St. John, N.B.	5 "	10	The Quaker Oats Co., Peterboro, Ont.		Chop Feed, *(Banner Brand.)*

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
JNO. C. FERGUSON—INSPECTOR.									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	.....	...	4·46	15·75	8·5	As claimed, no weed seeds.	45499	Genuine.
....	.....	.....	.....	4·34	14·09	9·6	" ..	45500	"
.....	.....	.....	.....	4·40	14·48	8·6	" ..	45501	"
.....	....	....	.....	4·26	16·58	7·9	" ..	45502	"
.....	....	.....	.....	4.20	15·40	8·1	" ..	45503	"
4·39	-16·73	- 5·20	3·94	.....	15·22	4·2	" ..	45504	"
.....	.....	.....	4·12	....	15·09	5·5	" ..	45505	"
.....	...	.....	4·32	...	16·34	6·3	" ..	45506	"
- 6·04	-15·36	- 7·51	5·74	.....	17·02	5·6	" ..	45507	Genuine; meets requirements of claim.
.....	.....	....	4·36	.....	14·87	4·8	" ..	45508	Genuine.
.....	.....	.....	5·12	.....	17·19	4·8	" ..	45509	"
.....	.....	.....	4·72	.....	14·92	8·1	" ..	45510	"
.....	.....	.....	4·58	.....	15·84	6·6	" ..	45511	"
.....	.....	.....	3·94	.....	16·10	5·2	" ..	45512	"
.....	.....	.....	5·00	.....	17·85	5·7	" ..	45513	"
- 3·50	- 8·50	- 9·00	3·26	.....	9·35	6·6	" ..	45514	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF NEW BRUNSWICK—
1911.								
May 16	Stock Feeds.	45515	Jno. Gibson & Son, Fredericton, N.B.	5 lbs.	Nil.	The Campbell Milling Co., Ltd., West Toronto.	.....	Chop Feed, *(Geneva Feeds, Steam Rolled)*
" 17	" ..	45516	J. M. [illegible], Woodstock, N.B.	5 "	10	Meduxnakeag Roller Mills, Woodstock, N.B.	.....	Chop Feed.....
" 19	" ..	45517	J. W. McPhail, Perth, N.B.	5 "	15	The Ogilvie Flour Mills Co., Ltd., Montreal.	.....	Chop Feed, (Ogilvie's Puritan Feed), *Registered No. 104 Puritan.*
" 22	" ..	45518	W. B. McKay & Co., Ltd., Sussex, N.B.	5 "	15	" ..	.....	Chop Feed, (Ogilvie's Hercules. Pure corn, oats and barley feed. Regs.)
" 25	" ..	45519	J. B. Snowball Co., Ltd., Chatham, N.B.	5 "	10	S. J. Cherry, Preston, Ont.	...	Shorts.....
								DISTRICT OF QUEBEC—
May 9	Stock Feeds.	36946	Pierre Renaud, 597 rue St. Valier, Quebec.	5 lbs.	15	Unknown....	Unknown ..	Bran. .....
" 10	" ..	36947	Napoléon Bertrand, 685 rue St. Valier, Que.	5 "	10	Alexander Brown, Toronto.	Manufacturer.	" .....
" 12	" ..	36948	W. Carrier & fils 108 rue Dalhousie, Quebec	5 "	Nil.	Ogilvie Flour Mills.	Manufacturers.	" .....
" 15	" ..	36949	P. G. Busière & Cie, 89 rue Dalhousie, Quebec	5 "	"	Lake of the Woods.	"	" .....
" 17	" ..	36950	D. E. Drolet, 52 rue Dalhousie, Quebec.	5 "	"	Ogilvie Flour Mills.	"	" .....
" 10	" ..	36951	Nap. Renaud, 685 rue St. Valier, Quebec.	5 "	15	Alex. Brown, Toronto.	Manufacturer.	Shorts.....
" 15	" ..	36952	P. G. Busière & Cie, 89 rue Dalhousie, Quebec	5 "	Nil.	Ogilvie Flour Mills.	Manufacturers.	" .....
" 15	" ..	36953	W. Carrier & fils 108 rue Dalhousie, Quebec	5 "	"	[illegible]	[illegible]	" .....
" 17	" ..	36954	Désiré E. Drolet, 52 rue Dalhousie, Quebec	5 "	"	West'n Canada Flour Mills.	"	" .....
" 17	" ..	36955	E. M. Lennon, St. James st., Quebec.	5 "	"	"	"	" .....
" 9	" ..	36956	Pierre Renaud 597 rue St. Valier, Quebec.	5 "	15	Unknown.	Unknown ..	Middlings.....

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
JNO. C. FERGUSON—INSPECTOR—*Concluded.*									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	.....	2·60	.....	16·93	4·7	As claimed, no weed seeds.	45515	Genuine.
.....	.....	.....	3·08	.....	11·90	7·3	"	45516	"
– 4·00	– 9·50	– 6·50	2·88	.....	10·05	8·4	"	45517	"
.....	.....	.....	3·00	.....	10·37	9·1	"	45518	"
.....	.....	.....	4·68	.....	15·31	5·2	"	45519	"
F. X. W. E. BELAND—INSPECTOR.									
.....	.....	.....	.....	3·56	12·90	15·1	As claimed, no seeds.	36946	Low in proteids, high in fibre. Adulterated under the Act.
.....	.....	.....	4·15	.....	13·78	8·5	As claimed, no weed seeds.	36947	Genuine.
.....	.....	.....	4·87	.....	14·96	7·1	"	36948	"
.....	.....	.....	4·51	.....	15·62	8·9	"	36949	"
.....	.....	.....	4·59	.....	16·71	7·2	"	36950	"
.....	.....	.....	4·08	.....	14·61	7·7	As claimed, no weeds.	36951	"
.....	.....	.....	3·80	.....	17·02	6·5	"	36952	"
.....	.....	.....	4·56	.....	17·19	6·1	As claimed, no weed seeds.	36953	"
.....	.....	.....	.....	3·44	14·22	2·8	"	36954	"
.....	.....	.....	4·12	.....	17·85	6·7	"	36955	"
.....	.....	.....	.....	1·55	12·73	0·7	Floury, no weed seeds.	36956	Low in fat and in proteids. Should be sold as feed-flour.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cent.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF QUEBEC—
1911.								
May 10	Stock Feeds.	36957	Nap. Bertrand, 685 rue St. Valier, Quebec.	[illegible]	15	Alex. Brown, Co., Toronto.	Manufacturer.	Middlings.
" 12	"	36958	W. Carrier & fils 108 rue Dalhousie, Quebec	[illegible]	Nil.	Quaker Oats Co., Peterboro.	Manufacturers.	Chop Feed
" 17	"	36959	Désiré E. Drolet, 52 rue Dalhousie, Quebec	[illegible]	"	Lake of the Woods.	"	Middlings
" 17	"	36960	E. M. Lennon, St. James st., Quebec.	[illegible]	"	Maple Leaf Milling Co.	"	"
" 9	"	36961	Pierre Renaud, 597 rue St. Valier, Quebec.	[illegible]	15	Unknown	Unknown	Chop Feed
" 10	"	36962	Nap. Bertrand, 685 rue St. Valier, Quebec.	[illegible]	15	R. C. Muir, Quebec.	Manufacturer.	"
" 12	"	36963	W. Carrier & fils 108 rue Dalhousie, Quebec	[illegible]	Nil.	Ogilvie Flour Mills.	Manufacturers.	"
" 15	"	36964	P. G. Busière & Cie, 89 rue Dalhousie, Quebec	[illegible]	"	Lake of the Woods.	"	"
" 17	"	36965	Désiré E. Drolet, 52 rue Dalhousie, Quebec	[illegible]	"	Ogilvie Flour Mills.	"	"
								DISTRICT OF ST. HYACINTHE—
May 9	Stock Feeds.	38960	M. K. McKenzie, Richmond, P. Q.	3 lbs.	Nil.	Ogilvies		Bran.
" 10	"	38961	J. L. Legendre, Asbestos.	4 "	"	"		"
" 17	"	38962	Henri Hebert, St. Leonard Junction.	[illegible]	"	Saskatoon Milling Co., Ltd., Saskatoon.		"
" 17	"	38963	Albert Duguay, St. Gregorie de Nicolet.	3 "	"	Western Canada Flour-mills Co.		"
" 22	"	38964	Oct. Beauchamp, St. Simon de Bagot.	3 "	"	Ogilvies		"
" 9	"	38965	McKee Bros., Richmond, P. Q.	5 "	"	Western Canada Flour-mills Co.		Shorts
" 9	"	38966	A. Milette, Windsor Mills	5 "	"	Tavistock Milling Co., Tavistock, Ont.		"
" 10	"	38967	J. L. Legendre, Asbestos.	5 "	"	Ogilvies		"
" 22	"	38968	Oct. Beauchamp, St. Simon de Bagot.	3 "	"			"

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
F. X. W. E. BELAND—INSPECTOR—*Concluded.*									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	....	.....	....	4·28	14·35	4·3	As claimed, no weed seeds.	36957	Genuine.
.....	....	....	.....	3·83	13·17	6·6	"	36958	"
....	....	.....	4·00	...	17·46	7·8	As claimed, no seeds...	36959	"
.....	....	.....	4·24	.....	16·10	5·2	As claimed, no weed seeds.	36960	"
.....	.....	...	3·26	....	12·16	9·5	"	36961	"
.....	.....	...	2·86	.....	9·10	6·9	"	36962	"
.....	.....	.....	2·90	.....	10·81	9·9	"	36963	"
.....	.....	.....	2·06	.....	10·59	12·2	Oat hulls, no weed seeds.	36964	Fibre high. Pass.
.....	.....	...	4·26	...	9·76	7·5	As claimed, no seeds...	36965	Genuine.
J. C. ROULEAU—INSPECTOR.									
.....	.....	.....	4·79	.....	16·62	7·7	As claimed, no weed seeds.	38960	Genuine.
.....	.....	.....	4·69	...	16·97	7·4	"	38961	"
.....	.....	.....	4·57	.....	17·32	6·6	"	38962	"
.....	.....	.....	4·63	.....	15·44	7·9	"	38963	"
.....	.....	....	4·73	.....	17·10	7·7	"	38964	"
.....	.....	.....	4·56	.....	17·59	5.5	"	38965	"
.....	.....	..	.....	4·59	16·67	7·0	"	38966	"
.....	.....	.....	.....	4·00	15·01	7·5	"	38967	"
.....	.....	.....	....	4·14	16·36	6·9	"	38968	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacture.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)
			DISTRICT OF ST. HYACINTHE—					
1911.								
May 22	Stock Feeds.	38969	A. Lefebvre, St. Simon de Bagot.	5 lbs.	Nil.	Lake of the Woods.	J. M. Palardy, St. Hyacinthe.	Shorts
" 9	"	38970	M. K. McKenzie, Richmond, P. Q.	3 "	"	Renfrew Roller Mills Co., Ltd., Renfrew, Ont.		Middlings
" 9	"	38971	A. Milette, Windsor Mills	5 "	"	Seaforth Milling Co., Seaforth, Ont.		"
" 10	"	38972	J. L. Legendre, Asbestos.	5 "	"	Ogilvie Milling Co., Montreal		"
" 11	"	38973	L. O. Pepin & fils, Victoriaville.	4 "	"	Lake of the Woods Milling Co., Montreal.		"
" 9	"	38974	C. O. Genest & fils, Sherbrooke	4 "	"	"		Special middlings
" 9	"	38975	McKee Bros., Richmond, P. Q.	4 "	"	Quaker Oats Co., Peterboro, Ont.		Chop Feed. (Reg. No. 13).
" 9	"	38976	R. & N. Robitaille frères, Windsor Mills	4 "	"	"		Chop Feed
" 10	"	38977	Vilandre & frères, Danville.	3 "	7	Lake of the Woods Milling Co., Montreal.		Wheat chop
" 18	"	38978	J. Comteau, Nicolet.	3½ "	7	Ogilvie Milling Co., Montreal		Eureka chop. (Reg. No. 28).
" 18	"	38979	Alb. Duguay, St. Gregorie de Nicolet.	4 "	Nil	Western Canada Flour mills. Co.		Moulee, K
			DISTRICT OF MONTREAL—					
May 3	Stock Feeds.	40651	Bruneau, Currie & Co. Place Youville, Montreal.	5 lbs.	Nil.			Bran.
" 3	"	40652	Jas. Scott & Co. Ltd., St. James St. Montreal.	"	"	Lake of the Woods Milling Co. Ltd.		"
" 5	"	40653	W. L. Hogg, Notre Dame East, Montreal	"	5	Maple Leaf Milling Co. Ltd.		"
" 8	"	40654	Ogilvie Flour Mills Co. Ltd., Montreal.	"	Nil.	Vendors		"
" 11	"	40655	Lake of the Woods Milling Co. Ltd., Montreal.	"	"	"		"

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
J. C. ROULEAU, INSPECTOR—*Concluded.*									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	.....	5·00	.....	17·94	5·7	As claimed, no weed seeds.	38969	Genuine.
.....	.....	.....	4·24	...	16·14	6·4	" ..	38970	"
.....	.....	.....	.....	3·67	15·00	7·7	" ..	38971	"
.....	.....	.....	4·40	.....	15·88	6·1	" ..	38972	"
....	.....	.....	4·88	....	17·28	5·3	" ..	38973	"
....	.....	.....	.....	4·71	17·94	3·9	" ..	38974	"
4·00	10·50	10·50	2·84	.....	9·76	8·2	" ..	38975	Below claim in fat. Pass.
....	.....	.....	3·20	.....	11·29	7·7	" ..	38976	Genuine.
.....	.....	.....	3·98	.....	16·93	3·7	" ..	38977	"
5·00	11·31	8·63	3·28	....	12·90	10·0	As claimed, weed seeds, 32 seeds per pound.	38978	Genuine as chop, but below claim in fat. Adulterated with weed seeds.
.....	.....	.....	.....	1·76	6·87	19·2	Excess hulls	38979	Low in fat and proteids, high in fibre. Adulterated.
J. J. COSTIGAN, INSPECTOR.									
.....	...	.....	4·00	...	13·13	9.2	As claimed, no seeds..	40651	Genuine.
..	.....	.....	4·26	...	15·27	7·7	" " ..	40652	"
.....	.....	.....	4·74	.....	14·31	7·4	" " ..	40653	"
.....	.....	.....	4·74	.....	16.97	6·9	" " ..	40654	"
.....	.....	.....	4·20	.....	15·71	7·7	Weed seeds.....	40655	Adulterated with weed seeds, 169 seeds per pound.

DISTRICT OF MONTREAL—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)
1911.								
May 3	Stock Feeds.	40656	Bruneau, Currie & Co., Place Youville, Montreal.	5 lbs.	Nil.	.....	.....	Shorts.....
" 5	"	40657	W. L. Hogg, Notre Dame East, Montreal	"	5	.....	.....	" .....
" 8	"	40658	Ogilvie Flour Mills Co., Ltd. Montreal.	"	Nil.	Vendors ..	.....	" .....
" 11	"	40659	Lake of the Woods Milling Co. Ltd., Montreal.	"	"	"	.....	" .....
" 11	"	40660	B. Vaillancourt, 1195 St. Lawrence B., Montreal.	"	"	J. N. Coupal. Plantagenet Springs.	.....	" .....
" 3	"	40661	Bruneau, Currie & Co., Place Youville, Montreal.	"	"	Western Canada Milling Co., Brandon	.....	Middling. .....
" 3	"	40662	Jas. Scott, & Co. Ltd., St. James St. Montreal.	"	"	Lake of the Woods Milling Co. Ltd.	.....	" .....
" 5	"	40663	W. L. Hogg, Notre Dame East, Montreal	"	5	Campbell Milling Co. Ltd., Toronto..	.....	" .....
" 8	"	40664	Ogilvie Flour Mills Co. Ltd., Montreal.	"	Nil.	Vendors	.....	" .....
" 11	"	40665	Lake of the Woods Milling Co. Ltd., Montreal.	"	"	"	.....	" .....
" 3	"	40666	Bruneau, Currie & Co., Place Youville, Montreal.	"	"	McDonald and Robb, Valleyfield, P.Q.	.....	Chop Feed. .....
" 3	"	40667	Jas. Scott & Co. Ltd., St. James St. Montreal.	"	"	Bishop & Son, Crysler, Ont.	.....	" .....
" 5	"	40668	W. L. Hogg, Notre Dame East, Montreal	"	10	Vendor..	.....	" .....
" 8	"	40669	Ogilvie Flour Mills Co. Ltd., Montreal.	"	Nil.	.....	.....	Chop Feed (Champion Brand.)
" 11	"	40670	Lake of the Woods Milling Co. Ltd., Montreal.	"	"	.....	.....	Chop Feed (Ox meal Brand.)

STOCK FEEDS:

Claim.			Results of Analysis.						
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.	Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
J. J. COSTIGAN, INSPECTOR—*Concluded.*									
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
....	....	.....	4·86	..	15·75	6·8	As claimed, no weed seeds.	40656	Genuine.
...	..	.....	5·36	.....	15·53	6·9	" " ..	40657	"
....	..	.....	4·80	....	16·71	6·7	" " ..	40658	"
...	...	.....	6·48	.....	17·10	6·9	" " ..	40659	"
.....	...	.....	4·74	....	15·18	3·9	" " ..	40660	"
.....	...	.....	4·22	.....	15·92	2 3	" " ..	40661	"
.....	..	.....	4·96	.....	16·71	7·9	" " ..	40662	"
.....	...	....	6·26	.....	16·10	6·2	" " ..	40663	"
.	.....	....	5·02	.....	15·18	5·6	" " ..	40664	"
..	.....	.....	5·44	.....	16·58	4·6	" " ..	40665	"
.....	...	.....	3·56	....	15·53	7·6	" " ..	40666	"
.....	....	.....	2·60	.....	11·16	7·3	" " ..	40667	"
.....	.....	.....	3·20	.....	9·45	5·6	" " ..	40668	"
4·15	8·87	6·86	2·50	....	9·36	8·0	Some seeds.	40669	4 seeds per lb. Pass.
3·20	16·50	7·60	3·56	....	15·71	3·6	"	40670	64 seeds per lb. Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (As not an expression of opinion.)
								DISTRICT OF OTTAWA—
1911.								
May 2	Stock Feeds.	43258	Wm. Scott & Co., Deschenes P.Q.	5 lbs.	7	Vendors		Bran
" 3	"	43259	The Dowd Milling Co., Ltd., Pakenham.	5 "	7			"
" 4	"	43260	The Dowd Milling Co., Quyon	5 "	7			"
" 9	"	43261	The Woods Mills Co., Smith Falls.	5 "	Nil			"
" 1	"	43262	Western Canada Flour Mills Co., Ltd., Ottawa.	5 "	7			Shorts Reg. No. 63, guaranteed analysis. *Protein 18·38, Fat.6·02, Fibre7·99.*
" 1	"	43265	The Maple Leaf Milling Co., Ltd., Ottawa.	5 "	7			Shorts
" 1	"	43266	Wm.Scott & Co., Deschenes, PQ	5 "	7			"
" 1	"	43268	Western Canada Flour Mills Co., Ltd., Ottawa.	5 "	7			Middlings "Choice" Brand, guaranteed analysis. *Protein 16·73, Fat. 4·33, Fibre 5·20.*
" 1	"	43269	The Maple Leaf Milling Co., Ltd., Ottowa.	5 "	7			Middlings
" 2	"	43270	Wm.Scott & Co., Deschenes, P.Q	5 "	7			"
" 3	"	43271	The Dowd Milling Co., Ltd., Pakenham.	5 "	7			"
" 2	"	43274	Wm.Scott & Co., Deschenes, P.Q	5 "	7			Chop Feed, (Barley).
" 3	"	43275	The Dowd Milling Co., Ltd., Pakenham.	5 "	7			Chop Feed, (Oats & Barley).
" 4	"	43276	The Dowd Milling Co., Ltd., Quyon, P.Q.	5 "	7			Chop Feed
" 16	"	43280	Wm. R. Cummings, Cummings Bridge..	3 "	Nil			" *(No. 1 all grain).*
" 19	"	43281	J.W. Nesbitt & Co., 1095 Bank st., Ottawa.	6 "	10	Campbell & McNab, Douglas Ont.	Manufacturers.	Middlings
" 18	"	43284	A. E. Cameron, Brockville.	5 "	6	Ogilvie Milling Co., Montreal.	"	Bran.
" 3	"	43285	The Dowd Milling Co., Ltd., Pakenham.	5 "	7	Vendors.		Shorts..

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
J. A. RICKEY, INSPECTOR.									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	...	4·14	...	14·08	12·1	Oat hulls, no seeds ...	43258	Genuine.
..	.....	....	4·60	.....	14·31	8·6	As claimed, no seeds..	43259	"
.....	.....	.....	4·62	.....	13·39	9·3	" ..	43260	"
.....	.....	.....	4·24	.....	15·35	9·2	" ..	43261	"
6·02	18·38	7·99	5·14	.....	17·69	5·8	" ..	43263	"
.....	.....	.....	5·12	.....	15·66	6·6	" ..	43265	"
.....	...	.....	4·30	.....	13·78	10·3	" ..	43266	Pass.
.. .	.....	...	4·02	....	16·45	4·6	" ..	43268	Genuine.
.. .	.....	.....	4·08	... .	15·14	5·8	As claimed, no weed seeds.	43269	"
.....	.....	...	3·90	.....	12·29	6·2	" ..	43270	Low in proteids. Adulterated under the Act.
.....	.. .	.....	....	2·08	12·51	0·8	Much starch, no weed seeds.	43271	Low in fat. & proteids. Should be sold as feed flour.
.....	.....	... .	2·32	.....	12·20	4·2	As claimed, no weed seeds.	43274	Genuine.
.....	. ...	.....	2·74	.....	9·36	8·8	As claimed, no seeds; oat hulls.	43275	"
.....	.....	.....	4·18	... ..	13·43	5·9	As claimed, no seeds..	43276	"
. . ..	.....	... .	3·56	.....	10·15	8·6	"	43280	"
. ....	.....	.....	.... .	2·32	13·26	1·3	Floury, no seeds.....	43281	Low in fat. and proteids. Should be sold as feed flour.
.....	.....	.....	4·00	. ..	14·31	8·1	As claimed, no seeds..	43284	Genuine.
.....	... ..	.....	5·06	.....	15·53	6·3	" ..	43285	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF OTTAWA—
1911.								
May 4	Stock Feeds.	43286	The Dowd Milling Co., Ltd., Quyon, P.Q.	5 lbs.	7	Vendors		Shorts
" 9	"	43288	The Woods Mills Co., Smith Falls.	5 "	Nil	"		Chop Feed (Oats & Corn).
" 12	"	43293	J. W. McKay, 347 Wellington st., Ottawa.	5 "	12	The Quaker Oats Co., Peterboro, Ont.	Manufacturers.	Chop Feed, "Banner" Brand, analysis on Bags, Reg. No. 16. *Protein 8·50, Fat. 3·50, Fibre 9·00*
" 12	"	43294	"	5 "	13			Chop Feed. "Schumacher" Brand Reg. No. 13 analysis on bags. *Protein 10·50, Fat. 4·00 Fib. 10·50.*
" 4	"	43295	The Dowd Milling Co., Quyon P.Q.	5 "	Nil	Vendors.		Oat Feed
								DISTRICT OF KINGSTON—
April 27	Stocks Feeds.	48501	J. A. McFarlane, Kingston.	5 lbs.	5	Canada Cereal Co., Toronto		Bran
" 27		48502	W. P. Peters, Kingston.	5 "	10	Lake of the Woods Milling Co.		
" 27		48503	D. Hutchison, Kingston.	5 "	10	Ogilvie Milling Co.		
May 1		48504	A. H. Lake, Pictou, Ont.	5 "	5	Vendor		
" 1		48505	Hyatt & Rolston, Pictou, Ont.	5 "	5	Vendors		"
April 27		48506	Hedley Shaw, Kingston.	5 "	10	Vendor		Shorts
" 27		48507	W. P. Peters Kingston.	5 "	5	Quaker Oats Co., Peterboro.		
" 27		48508	J. A. McFarlane, Kingston.	5 "	10	Canada Cereal Co., Toronto.		
" 27		48509	D. Hutchison, Kingston.	5 "	10	Seaforth Milling Co.		
" 28		48510	Geo. Gibson, Kingston.	5 "	10	Hedley Shaw Milling Co.		
" 27		48511	Kingston Milling Co., Kingston.	5 "	10	Vendors		Middlings
" 28		48512	Geo. Gibson, Kingston.	5 "	10	Leitch Bros., Winnipeg.		
May 2		48513	H. E. Mayhew,)Trent Valley Mills) Trenton	5 "	5	Vendor		
" 2		48514	E. A. Duncan, Cobourg.	5 "	20	Lake of the Woods.		

STOCK FEEDS.

Claim.			Results of Alanysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
J. A. RICKEY, INSPECTOR—*Concluded.*									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	....	.....	4·16	.....	15·40	7.8	As claimed, no seeds..	43286	Genuine,
.....	.....	.....	3·74	.....	10·24	7·4	" ..	43288	"
3·50	8·50	9·00	2·28	.....	9·77	6·2	" ..	43293	"
4·00	10·50	10·50	2·32	.....	9·06	9·2	" ..	43294	"
.....	.....	.....	.....	3·33	10·84	18·6	" ..	43295	Excess hulls. Adulterated.
JAS. HOGAN, INSPECTOR.									
.....	.....	.....	.....	3·68	14·10	9·8	As claimed, no seeds..	48501	Genuine.
.....	.....	.....	4·10	.....	15·62	9·6	" ..	48502	"
.....	.....	.....	4·34	.....	15·75	7·8	" ..	48503	"
.....	.....	.....	4·64	.....	15·71	7·1	" ..	48504	"
.....	.....	.....	4·16	.....	15·92	8·5	" ..	48505	"
.....	.....	.....	5·24	.....	16·32	6·9	As claimed, no weed seeds.	48506	"
.....	.....	.....	4·34	.....	14·52	7·0	" ..	48507	"
.....	.....	.....	.....	4·02	15·35	6·5	" ..	48508	"
.....	.....	.....	.....	4·02	15·40	7·4	" ..	48509	"
.....	.....	.....	5·32	.....	16·27	8·0	Bran tissues, no weed seeds.	48510	"
.....	.....	.....	3·76	.....	14·48	2·7	" ..	48511	"
.....	.....	.....	4·64	.....	14·61	1·5	Floury, no weed seeds..	48512	"
.....	.....	.....	5·06	.....	15·01	6·4	" ..	48513	"
.....	.....	.....	.....	3·24	14·83	5·2	As claimed, no weed seeds.	48514	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF KINGSTON—
1911.								
May 2	Stocks Feeds.	48515	Thompson & Macdonald, Cobourg.	5 lbs.	5	Ogilvie's, Montreal.		Middlings
April 27		48516	Kingston Milling Co., Kingston.	5 "	10	Vendors		Chop Feed
" 27		48517	W. P. Peters, Kingston.	5 "	10	Quaker Oats Co., Peterboro.		"
" 27		48518	D. Hutchison, Kingston.	5 "	10	Vendor		"
" 28		48519	Geo. Gibson, Kingston.	5 "	10	Quaker Oats Co., Peterboro.		"
May 1		48520	A. H. Lake, Picton, Ont.	5 "	5	Vendor		"
								DISTRICT OF TORONTO—
May 12	Stock Feed.	47323	O. E. Wilson, Dunnville.	5 lbs.	5	Vendor		Chop Feed (*Mixed Grains.*)
" 12		47324	S. Haney & Son, Dunnville.	5 "	5	Vendors		Chop Feed
" 15	"	47325	Chisholm Milling Co., Ltd., Toronto.	5 "	5	"		" (*Monarch Brand, Reg. No. 85.*)
" 16	"	47326	Joseph White, 682 Queen St., East, Toronto.	5 "	5	Vendor		Chop Feed (*Sample from a bin in feed store with Bran and Oat Shorts mixed together and sold as mixed feed. Not Reg.*)
" 16	"	47327	The C. J. Daniels Milling Co., Ltd., Toronto.	5 "	10		McGowan Milling Co., Durham.	Chop Feed (Barley and oats. No Reg. No. on bags.)
" 9	"	47328	The Maple Leaf Milling Co., Ltd., Thorold.	5 "	6	Vendors		Bran
" 13	"	47329	Wood Milling Co., Hamilton.	5 "	5	"		"
" 13	"	47330	Jos. Dunlap Co., Ltd., Hamilton	5 "	7	Maple Leaf Milling Co., Kenora.		"
" 15	"	47331	Western Canada Flour Mills Co., Ltd., Toronto.	5 "	5	Vendors		" (Registration No. 66)
" 16	"	47332	The Campbell Milling Co., Ltd., West Toronto.	5 "	Nil.	"		Bran
" 9	"	47333	The Maple Leaf Milling Co., Ltd., St. Catharines.	5 "	10	"		Shorts

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
JAS. HOGAN, INSPECTOR—*Concluded.*									
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
.....	.....	.....	4·28	.....	16 89	6·2	As claimed, no weed seeds.	48515	Genuine.
.....	.....	.....	3·92	.....	9·27	8·8	..	48516	"
.....	.....	.....	2·56	.....	10·06	10·3	Oats hulls, no weed seeds.	48517	"
.....	.....	.....	2·60	.....	9·36	11·4	As claimed, no weed seeds.	48518	"
.....	.....	.....	2·36	.....	9·20	6·9	" ..	48519	"
.....	.....	.....	3·26	.....	10·06	10·3	As claimed, no seeds .	48520	"
H. J. DAGER, INSPECTOR.									
.....	.....	.....	2·30	.....	10·81	3·9	As claimed, no weed seeds.	47323	Genuine.
.....	.....	.....	2·04	.....	17·19	7·1	" ..	47324	"
3·00	7·00	25·00	2·40	.....	6·00	20·6	Excess hulls, no weed seeds.	47325	Low in proteids, high fibre but nearly meets claim Pass.
.....	.....	.....	5·40	.....	15·57	4·6	As claimed, no weed seeds.	47326	Genuine.
2·08	6·90 Reg 87	23·78	....	1·62	7·70	14·1	Hulls in excess. No weed seeds.	47327	Meets guarantee. Pass.
.....	...	.....	4·82	.....	15·66	7·6	As claimed. No weed seeds.	47328	Genuine.
.....	...	.....	3·40	.....	13·82	8·4	" ..	47329	"
.....	...	...	4·48	.....	14·35	9 2	" ..	47330	"
5·50	16·82	10 86	3·72	.....	15·76	9·6	" ..	47331	Genuine as bran ; but below claim in fat. Pass.
.....	.....	.....	3·86	...	14·52	9·7	" ..	47332	Genuine.
.....	.....	.....	.....	5·25	17·63	6 2	" ..	47333	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cost.	Manufacturer.	Furnisher.	
								DISTRICT OF TORONTO—
1911.								
May 13	Stocks Feeds.	47334	Hamilton Milling Co., Hamilton.	5 lbs..	6	Vendors	.....	Shorts.....
" 13	" ..	47335	Kerr Milling Co., Ltd., Dundas.	5 " ..	5	"	.....	" .....
" 11	" ..	47336	Lake of the Woods Milling Co., Ltd., Toronto.	5 " ..	5	"	.....	" .....
" 16	" ..	47337	The Chalmers Milling Co., East Toronto.	5 " ..	7	"	.....	" .....
" 9	" ..	47338	J. Black & Son, St. Catharines.	5 " ..	10	"	.....	Middlings.....
" 9	" ..	47339	Wm. Monroe, Thorold.	5 " ..	10	Vendor.....	.....	" .....
" 11	" ..	47340	Riverside Mills, Welland.	5 " ..	10	Vendors	.....	" .....
" 15	" ..	47341	The Alex. Brown Milling Co., Ltd., Toronto.	5 " ..	5	" ..	.....	" .....
" 19	" ..	47342	Wm. Cosburn, 323 Queen St., East Toronto.	5 " ..	7	...	Lake of the Woods Milling Co., Ltd.	" ..... (Bags are branded Shorts, but sold as Middlings.)
								DISTRICT OF LONDON—
May 16	Stock Feed .	48057	Jno. A. Andrew, Stratford.	5 lbs..	10	McLeod Milling Co., Stratford.	..	Shorts.....
" 16	" .	48058	" ..	5 " .	10	" ..	.....	Bran.....
" 16	" .	48059	" ..	5 " .	10	Unknown.	Unknown...	Chop Feed.....
" 16	" ..	48060	O. H. Killer, Stratford.	5 " .	8	McLeod Milling Co., Stratford.	.....	Shorts.....
" 16	" ..	48061	"	5 " .	8	" ..	.....	Bran.....
" 16	" ..	48062	" ..	3 pkgs	9	Quaker Oats Co., Peterboro.	.....	Chop Feed (Schumacher).
" 16	" ..	48065	J. Kennedy, Berlin.	3 " .	8	Irvine Master City Mills, Berlin.	.....	Shorts ... .
" 16	" ..	48066	" ..	3 " .	8	" ..	.....	Bran... .....
" 17	" .	48067	J. Weseloh, Waterloo, Ont.	3 " .	10	Wm. Snyder, Waterloo, Ont	.....	Shorts.. .....
" 17	" ..	48068	" ..	3 " .	10	" .	.....	Chop Feed.....
" 17	" ..	48069	I. Holman, Berlin.	3 " .	8	Unknown.	.....	Shorts.....
" 17	" ..	48070	" ..	3 " .	8	Vendor....	.....	Bran.....
" 17	" ..	48071	" ..	3 " .	8	" ..	.....	Chop Feed.....
" 17	" ..	48072	Struthers and Church, Galt, Ont.	3 " .	10	Vendors.....	.....	" .....

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
H. J. DAGER, INSPECTOR—*Concluded.*									
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
.....	.....	.....	.....	3·86	15 01	4·7	As claimed, no weed seeds.	47334	Genuine.
.....	..	.....	.....	4·97	15·18	7·8	" ..	47335	"
.....	.....	.....	5·20	.....	16·76	5·6	" ..	47336	"
.....	.....	.....	.....	5·50	16·40	4·9	" ..	47337	"
.....	.....	.....	...	5·44	15·35	5·3	" ..	47338	"
.....	.	.....	4·26	...	15·22	4·4	" ..	47339	"
.....	.....	.....	.....	5·11	16·27	6·5	..	47340	"
.....	.....	...	4·96	.....	14·40	6·6	" ..	47341	"
.....	.....	.....	4·60	.....	17·02	5·2	" ..	47342	"
JNO. TALBOT, ACTING INSPECTOR.									
.....	.....	.....	.....	4·46	15·71	6·2	As claimed, no weed seeds.	48057	Genuine.
.....	.....	.....	4·19	.....	13·82	9·4	As claimed, no seeds..	48058	"
.....	.....	.....	.....	2·30	10·72	5·5	..	48059	"
.....	.....	.....	.....	4.43	14·70	5·4	" ..	48060	"
.....	.....	.....	4 25	.....	15·44	8·8	..	48061	"
·4	10·50	10·50	.....	2·90	10·63	9·4	" ..	48062	"
.....	.....	.....	.....	4·10	15·71	4·3	As claimed, no weed seeds.	48065	"
.....	.....	...	4·23	.....	14·87	8·8	" ..	48066	"
.....	.....	.....	4·44	.....	14·57	6·2	As claimed, no weed seeds, bran.	48067	"
.....	.....	...	4·14	.....	11·59	10·0	" ..	48068	"
.....	.....	.....	4·14	.....	14·70	7·4	" ..	48069	"
.....	.....	.....	4·57	.....	15·84	8·6	" ..	48070	"
.....	..	.....	5·52	.....	10·10	9·6	" ..	48071	"
.....	.....	.....	4·36	.	11·29	8·2	" ..	48072	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion.)
								DISTRICT OF WINDSOR—
1911.								
May 11	Stock Feeds.	48035	Hueston & Son, Glencoe.	5 lbs.	10	.....	Woodburn Milling Co., Glencoe.	Shorts .....
" 12	" ..	48037	Geo. Kirk, Woodstock, Ont.	5 "	5	Ogilvie Milling Co., Winnipeg.	..	" .....
" 12	"	48038	" ..	5 "	5	..	.....	Bran.....
" 12	" ..	48039	" ..	5 "	5	.	Grain sent to mill by the vendor and chopped to his order.	Chop Feed.....
" 12	" ..	48040	A. Patrick, Woodstock, Ont.	5 "	9	Unknown.....	.....	Shorts .....
" 12	" .	48041	" ..	5 "	9	" ..	Unknown ..	Bran.....
" 12	" .	48042	" ..	5 "	9	" ..	" ..	Chop Feed.....
" 12	" ..	48043	" ..	5 "	9	Bartlett Co., Jackson, Michigan,	.....	Cotton Seed Meal, "Michigan Farmer's Brand". Reg. No. 97.
10	" ..	48044	Geo. H. Murray, Woodstock, Ont.	5 "	5	Ogilvie Milling Co., Winnipeg.	....	Bran .....
" 12	" ..	48045	" .	5 "	5	Jas. Cullen, Woodstock, Ont.	....	Shorts.....
" 12	" ..	48046	" ..	5 "	5	M. Archibald Co., Beachville, Ont.	.....	Chop Feed.....
" 13	" ..	48048	B. L. Scott, Ingersoll.	5 "	5	Tavistock Milling Co., Tavistock.	.....	Shorts.....
" 13	" ..	48050	" ..	5 "	5	Western Canada Milling Co.	.....	Bran.....
" 13	" ..	48051	" ..	5 "	5	Vendor..	.....	Chop Feed.....
								DISTRICT OF MANITOBA—
May 4	" ..	47401	Western Canada Flour Mills Co., St. Boniface.	5 lbs.	Nil.	Vendors	.....	Bran.....
" 5	" ..	47402	The Ogilvie Flour Mills Co., Ltd., Winnipeg.	5 "	" .	.....	.....	" .....
" 17	" ..	47403	Lake of the Woods Milling Co.., Portage la Prairie.	6 "	.	.....	.....	" .....
17	" ..	47404	Maple Leaf Flour Mills Co., Brandon.	6 "	.	.....	.....	" .....

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
JNO. TALBOT, INSPECTOR.									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	.....	....	4·22	14·04	6·8	As claimed, no seeds	48035	Genuine.
.....	....	.....	.....	4·39	15·40	7·0	As claimed, no weed seeds.	48037	"
.....	.....	...	4·27	.....	15·14	8·2	" ..	48038	"
.....	.....	.....	3·36	...	12·03	10·1	" ..	48039	"
.....	.....	.....	..	3·73	15·12	6·8	As claimed, no weed seeds, bran tissues.	48040	"
.....	.....	.....	4·51	.....	16·32	8·5	" ..	48041	"
.....	.....	....	3·22	.....	7.78	10·8	Oathulls, no weed seeds	48042	Proteids low pass.
7	38	13	7·84	.....	39·77	6·2	As claimed, no weed seeds.	48043	Genuine.
....	.....	....	4·13	....	13·65	8·2	As described, no seeds	48044	"
.....	.....	.....	.....	3·61	15·10	6·9	As described, no weed seed.	48045	"
.....	.....	.....	.....	4·48	11·55	7·6	" ..	48046	"
.....	.....	.....	.....	4·16	14·00	7·0	As claimed, no weed seeds.	48048	"
.....	.....	.....	4·63	...	15·88	7·8	" ..	48050	"
.....	.....	.....	.....	3·18	10·25	1·6	Corn chop, no seeds....	48051	"
A. C. LARIVIÈRE, INSPECTOR.									
.....	.....	.....	4·39	.....	14·31	9·5	As claimed, no seeds..	47401	Genuine
.....	.....	.....	4·53	.....	14·48	10·5	..	47402	"
.....	.....	.....	4·57	.	14·87	9·9	" ..	47403	"
.....	.....	.....	4·49	.....	15·88	9·0	" ..	47404	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion).
DISTRICT OF MANITOBA—								
1911.								
May 18	Stocks Feeds.	47405	The Western Canada Flour Mills, Co., Ltd., Brandon.	6 lbs.	Nil.	Vendors		Bran
" 4	"	47406	The West'n Canada Flour Mills Co., Ltd., St. Boniface.	5 "	"	"		Shorts
" 5	"	47407	The Ogilvie Flour Mills Co., Ltd., Winnipeg.	5 "	"	"		"
17	"	47408	Lake of the Woods Milling Co., Portage la Prairie.	6 "	"	"		"
" 17	"	47409	Maple Flour Mills Co., Brandon.	6 "	"	"		"
" 18	"	47410	The West'n Canada Flour Mills Co. Ltd., Brandon.	6 "	"	"		"
" 4	"	47411	The West'n Canada Flour Mills Co., Ltd., St. Boniface.	5 "	"	"		Middling
" 5	"	47412	The Ogilvie Flour Mills Co., Ltd., Winnipeg.	5 "	"	"		"
" 18	"	47413	The West'n Canada Flour Mills Co. Ltd., Brandon.	6 "	"	"		"
" 19	"	47414	Laing Bros., Winnipeg.	6 "	"	Doukobor Society, Verigin, Sask.	Manutacturer.	"
" 19	"	47415	Carnefac Stock Food Co., Winnipeg.	6 "	"	The Western Canada Flour Mills Co., St. Boniface.		"
" 4	"	47416	Western Canada Flour Mills Co., Ltd., St. Boniface.	5	"	Vendors		Chop Feed
" 5	"	47417	The Ogilvie Flour Mills Co., Winnipeg.	5 "	"	"		"

STOCK FEEDS.

A. C. LARIVIERE, INSPECTOR—*Concluded.*

Claim.			Results of Analyses.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
...	...	.....	4·73	....	17·63	7·7	As claimed, no seeds..	47405	Genuine.
.....	.....	....	5·76	....	16·58	6·2	As claimed, no weed seeds.	47406	"
.....	.....	...	5·14	.....	16·67	6·4	" ..	47407	"
.....	.....	....	5·30	....	17·15	5·5	" ..	47408	"
.....	....	.....	5·74	...	16·32	6·0	" ..	47409	"
.....	.....	.....	4·58	.....	16·10	6·4	" ..	47410	"
.....	..	....	3·98	.....	15·18	3·3	" ..	47411	"
.....	.....	....	4·44	....	14·48	6·6	" ..	47412	"
.....	.....	...	.....	2·66	15·11	1·9	Chiefly flour, no weed seeds.	47413	Low in fat. Should be sold as feed flour.
.....	.....	..	.....	3·16	13·60	1·8	" ..	47414	Low in proteids. Should be sold as feed flour.
.....	.....	....	4·28	....	14·52	4·9	As claimed, no weed seed.	47415	Genuine.
.....	.....	.....	3·58	.....	14·35	5·2	" ..	47416	"
.....	....	....	4·48	.....	14·48	3·7	" ..	47417	"

DISTRICT OF CALGARY—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
1911.								
May 18	Stock Feeds	43849	J. E. Love, Calgary.	5 lbs.	20	Saskatchewan Flour Mills Co., Ltd., Moosejaw.		Bran
" 18	"	43850	Erb & Anderson, Calgary.	5 "	20			"
" 19	"	43851	T. Fletcher, Calgary.	5 "	20	Western Canada Flour Mills, Winnipeg.		"
" 19	"	43852	Western Milling Co., Ltd., Calgary.	5 "	20	Vendors		"
" 19	"	43853	J. H. Maguire, Calgary.	5 "	20	Western Milling Co., Ltd. Calgary.		"
" 18	"	43854	Erb & Anderson, Calgary.	5 "	20	Medicine Hat Milling Co., Medicine Hat.		Shorts
" 19	"	43855	T. Fletcher, Calgary.	5 "	20	Western Canada Flour Mills Co., Winnipeg.		"
" 19	"	43856	Western Milling Co., Ltd.. Calgary.	5 "	20	Vendors		"
" 20	"	43857	Crown Feed and Produce Co. Calgary.	5 "	20	Redcliff Mill & Elevator Co., Redcliff.		"
" 20	"	43858	"	5 "	20			"
" 18	"	43859	J. E. Love, Calgary.	5 "	20	Brackman-Ker Milling Co., Ltd., Calgary		Chop Feed.
" 18	"	43860	Erb & Anderson Calgary.	5 "	20	Calgary Milling Co., Ltd. Calgary.		"
" 19	"	43862	Western Milling Co., Ltd., Calgary.	5 "	20	Vendors		"
" 20	"	43863	Crown Feed and Produce Co., Calgary.	5 "	20	"		"
" 18	"	43864	J. E. Love, Calgary.	5 "	20	Saskatchewan Flour Mills Co., Ltd., Moosejaw.		Middling.
" 19	"	43865	T. Fletcher, Calgary.	5 "	20	"		"
" 23	"	43866	Calgary Milling Co. Ltd., Calgary.	5 "	20	Vendors		"

STOCK FEED.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
R. W. FLETCHER, INSPECTOR.									
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
.....	.....	.....	4·76	.....	16·36	11·0	As described, no weeds.	43849	Genuine.
.....	.....	.....	4·54	.....	16·19	6·8	" no seeds.	43850	"
.....	.....	.....	4·40	.....	15·66	8·2	" ..	43851	"
.....	.....	.....	4·56	.....	14·83	7·9	" ..	43852	"
.....	.....	.....	4·32	...	13·96	8·0	" ..	43853	"
.....	.....	.....	4·12	.....	16·63	4·4	As claimed, no weed seeds.	43854	"
.....	.....	.....	4·78	.....	17·06	6·5	" ..	43855	"
.....	.....	.....	.....	3·89	14·57	5·3	" ..	43856	"
.....	.....	.....	5·22	.....	17·19	4·9	" ..	43857	"
.....	.....	.....	5·08	.....	17·94	5·6	" ..	43858	"
.....	.....	.....	.....	1·27	5·60	28·0	Excess hulls, no weed seeds.	43859	Low in fat and in proteids. High in fibre. Adulterated.
.....	.....	.....	3·48	.....	10·68	10·3	As claimed, no weeds.	43860	Genuine.
.....	.....	.....	3·60	.....	10·89	8·0	" ..	43862	"
.....	.....	.....	3·50	.....	9·92	9·3	" no weeds, oat hulls.	43863	"
.....	.....	.....	4·56	.....	17·59	4·8	As claimed, no weed seeds.	43864	"
.....	.....	.....	5·34	.....	17·54	5·0	" ..	43865	"
.....	.....	.....	.....	3·40	15·20	1·8	" ..	43866	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.
								DISTRICT OF CALGARY—
1911.								
May 23	Stocks Feeds.	43867	Calgary Milling Co. Ltd., Calgary.	5 lbs.	20	Saskatchewan Flour Mills Co., Ltd., Moosejaw.	....	Middling.... ....
23	"	43868	Lea & Duyei, 1209 Victoria Ave., Hillhurst, Calgary.	5 "	20	"	....	" .. ..
23	"	43869	Calgary Milling Co., Ltd., Calgary.	5 "	20	Vendors.	....	Chop Feed... .....
								DISTRICT OF NELSON—
May 18	Stock Feed.	48410	Taylor Milling & E. Co., Nelson, B.C.	5 lbs..	10	Maple Leaf Milling Co., Kenora.	.....	Bran .....
" 3	" ..	48411	" .	5 " ..	10	Western Canada Milling Co. Winnipeg	.....	Shorts.....
" 3	" ..	48412	" .	5 " ..	10	Saskatchewan Milling Co., Moose Jaw.	.....	Middlings .....
" 3	" ..	48413	" .	5 " ..	10	Taylor Milling Co., Lethbridge.	.....	Chop Feed..... Mixed.....
" 3	" .	48414	Brackman-Ker M. Co., Nelson, B.C.	5 " ..	9	Saskatchewan F. M. Co., Moose Jaw.	.....	Middlings... .. ....
" 3	" ..	48415	"	5 " ..	9	Calgary M. Co., Calgary.	.....	" ....
" 3	" .	48416	" .	5 " ..	9	" .	.....	Shorts..... .. ....
" 3	" ..	48417	"	5 " ..	9	" .	.....	Bran.....-.....
" 3	" .	48418	" .	5 " ..	9	Lake of the Woods Milling Co., Portage La Prarie.	.....	" ....
" 15	" ..	48421	Taylor Milling & E. Co., Cranbrook.	5 " ..	15	Taylor Milling & E. Co., Lethbridge.	....	" .....
" 15	" ..	48422	" .	5 " ..	15	" .	....	Shorts ....
" 15	" ..	48423	" .	5 " ..	15	" .	.....	Chop Feed..... Mixed.....
" 15	" ..	48424	Cranbrook Trading Co., Cranbrook.	5 " ..	10	Saskatchewan F. M. Co., Moose Jaw.	....	Bran.....
" 15	" ..	48425	" .	5 " ..	10	" .	....	Shorts.....
" 15	" ..	48426	" .	5 " ..	10	Alberta Pacific E. Co., Calgary.	.....	Chop Feed..... .... Mixed... .....

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids	Crude Fibre.			
R. W. FLETCHER, INSPECTOR—*Concluded.*									
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
...	...	...	3·96	...	17·46	5·8	As claimed, no weed seeds.	43867	Genuine.
...	...	...	4·99	...	17·81	5·8	" ..	43868	"
...	...	...	3·74	...	11·55	7·6	" ..	43869	"
THOS. PARKER, INSPECTOR.									
...	...	...	...	4·28	14·61	9·4	As claimed, no weed seeds.	48410	Genuine.
...	...	...	4·72	...	17·89	5·4	" ..	49411	"
...	...	...	4·70	...	18·02	5·5	" ..	48412	"
...	...	...	2·80	...	11·51	7·9	" ..	48413	"
...	...	...	6·06	...	17·76	5·1	As described, no weeds seeds.	48414	"
...	...	...	...	3·32	14·83	1·4	Chiefly flour, no weed seeds.	48415	"
...	...	...	5·46	...	16·45	5·9	As claimed, no weed seeds.	48416	"
...	...	...	...	4·01	14·57	9·1	" ..	48417	"
...	...	...	...	4·42	14·92	8·8	Weed seeds.....	48418	Adulterated with weed seeds, 160 seeds per lb.
...	...	...	...	3·74	16·80	9·1	As claimed, no seeds..	48421	Genuine.
...	...	...	4·60	...	16·67	4·6	" ..	48422	"
...	...	...	3·64	...	10·59	9·3	No weeds, oat hulls..	48423	"
...	...	...	...	3·28	14·96	8·1	As claimed, no seeds..	48424	"
...	...	...	4·42	...	15·15	4·4	" ..	48425	"
...	...	...	2·92	...	7·05	21·6	Oat-hulls in excess....	48426	Proteids too low. Fibre too high adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).
								DISTRICT OF VANCOUVER—
1911.								
May 15	Stock Feed.	38175	Henry Holtz, Granville St., Vancouver.	5 lbs.	10	Vancouver M. Co.		Bran.
" 16	"	38176	Brackman-Ker Milling Co., Vancouver.	5 "	Nil.	Ogilvie Milling Co.		"
" 22	"	38177	Calgary Milling Co., Vancouver			Vendors		"
" 22	"	38178	Vancouver Milling Co., Vancouver.	5 "	"			"
" 22	"	38179	McLellan McCarter, Vancouver.	5 "	10	Vancouver M. Co.		"
" 15	"	38180	Henry Holtz, Vancouver.	5 "	10	"		Shorts.
" 16	"	38181	Brackman-Ker Milling Co., Vancouver.	5 "	Nil.	Ogilvie Milling Co.		"
" 22	"	38182	Calgary Milling Co., Vancouver.	5	"	Vendors		Shorts.
" 22	"	38183	Vancouver Milling Co., Vancouver.	5	"	Tacoma Grain Co., Tacoma, Wash.		"
" 22	"	38184	McLellan & McCarter, Vancouver.	5	10	Vancouver Milling Co.		"
" 16	"	38185	Brackman-Ker Milling Co., Vancouver.	5	Nil.	Ogilvie Milling Co.		Middlings
" 22	"	38186	Calgary Milling Co., Vancouver.	5		Vendors		
" 22	"	38187	Vancouver Milling Co., Vancouver.	5				
" 22	"	38188	McLellan & McCarter, Vancouver.	5	15	Vancouver Milling Co.		
" 23	"	38189	W. H. Walsh, Vancouver.	5	15	Brackman-Ker Milling Co.		
" 15	"	38190	Henry Holtz & Co., Vancouver.	5	15	Unknown	Unknown	Chop Feed
" 16	"	38191	Brackman-Ker Milling Co., Vancouver.	5	Nil.	Vendors		
" 22	"	38192	Calgary Milling Co., Vancouver.	5	"			
" 22	"	38193	Vancouver Milling Co., Vancouver.	5	"			"
" 22	"	38194	McLellan & McCarter, Vancouver.	5	10	Vancouver Milling Co., Vancouver.		

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
J. F. POWER, INSPECTOR.									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	.....	.....	3·15	15·14	10·2	As claimed, no seeds..	38175	Genuine.
.....	....	.....	4·49	.....	14·31	10·5	" ..	38176	"
.....	.....	.....	.....	3·82	13·47	9·4	" ..	38177	"
.....	....	.....	4·43	.....	15·40	8·7	" ..	38178	"
.....	.....	.....	.....	2·47	17·63	9·3	" ..	38179	"
.....	.....	.....	3·86	.....	16·54	6·9	As described, no weed seeds.	38180	"
.....	.....	.....	4·00	.....	17·46	6·8	" .	38181	"
.....	..	.....	4·76	.....	15·97	4·8	As claimed, no weed seeds.	38182	Genuine.
.....	....	.....	5·56	.....	15·14	6·2	" ..	38183	"
.....	.....	.....	5·44	.....	17·32	7·8	" ..	38184	"
.....	.....	.....	.....	1·99	11·42	0·9	Chiefly flour, no weed seeds.	38185	Low in fat and in proteids. Should be sold as feed flour.
.....	.....	.....	.....	3·08	15·79	1·8	Much starch, no weed seeds.	38186	Genuine.
.....	.....	.....	4·92	.....	16·32	5·0	As claimed, no weed seeds.	38187	"
.....	.....	.....	.....	2·82	14·13	2·6	Chiefly flour, no weed seeds.	38188	"
.....	..	....	.....	1·81	12·03	0·5	" ..	38189	Low in fat and in proteids. Should be sold as feed flour
.....	..	.....	4·96	.....	10·98	8·2	As claimed, no weed seeds.	38190	Genuine.
.....	.....	.....	2·68	...	10·06	10·5	" ..	38191	"
.....	.....	.....	3·10	.....	11·59	6·3	" ..	38192	"
.....	.....	.....	2·24	.....	11·38	11·3	Excess hulls, no weed seeds.	38193	"
.....	.....	.....	3·92	.....	11·90	7·8	As claimed, no weed seeds.	38194	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF VICTORIA—
1911.								
June 9	Stock Feeds.	47610	The Brackman-Ker Milling Co., Ltd., Victoria, B.C.	5 lbs.	10	Ogilvie, F. M. Winnipeg.		Bran
" 9	"	47611	"	5 "	10	Saskatchewan F. Mills Co., Ltd., Moose Jaw		Middlings
" 9	"	47612	"	5 "	10	The Columbia F. Mills Co., Ltd., Enderby, B.C.		"
" 9	"	47613	"	5 "	10	Saskatchewan F. Mills Co., Ltd., Moose Jaw.		Shorts ("*Robin Hood*" *Brand*)
" 9	"	47714	"	5 "	10	The Columbia F. Mills Co., Ltd., Enderby, B.C.		"
" 9	"	47615	"	5 "	5	Vendors		Chop Feed (*Dairy*).
" 9	"	47616	"	5 "	10	"		Chop Feed (*Corn*).
" 12	"	47617	Scott & Peden, Victoria, B.C.	5 "	7½	Ogilvie F. Mills, Winnipeg.		Chop Feed (*Dairy*).
" 12	"	47618	"	5 "	7½	Vancouver Milling & Grain Co., Vancouver.		Middlings
" 12	"	47619	Scott & Peden, Victoria, B.C.	5 "	7½	Ogilvie Flour Mills, Winnipeg.		Bran
" 12	"	47620	"	5 "	7½	Western Canada F. Mills Co., Ltd.		Shorts. (Reg. No. 63.)
" 14	"	47621	T. W. Horne, Victoria, B.C.	5 "	7½	Prince Albert Roller Mills, P. Alb., Sask.		Middlings
" 14	"	47622	"	5 "	7½	Vancouv'r Milling and Grain Co., Ltd.		Shorts
" 14	"	47623	"	5 "	7½	Lake of the Woods, Portage la Prairie		Bran
" 14	"	47624	"	5 "	7½	Vendor		Chop Feed. (Alfalfa Dairy.)
" 19	"	47625	Sylvester Feed Co., Victoria, B.C.	5 "	10	Vendors		Chop Feed. (Creamery.)
" 19	"	47626	"	5 "	7½	Ogilvie Flour Mills, Winnipeg.		Bran
" 19	"	47627	"	5 "	7½	The Novelty Milling Co., Seattle, Wash		Shorts
" 26	"	47630	Simon Leiser & Co., Ltd., Victoria, B.C.	5 "	Nil.	Western Canada F. Mills Co., Ltd.		Bran. (Reg. No. 66.)

STOCK FEEDS.

Claim.			Results of Analysis.				Microscopic Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
			Fat.						
Fat.	Proteids.	Crude Fibre.	Indirect.	Direct.	Proteids.	Crude Fibre.			
D. O'SULLIVAN, INSPECTOR.									
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	.....	.....	4·06	.....	14·48	10·5	As claimed, no weed seeds.	47610	Genuine.
.....	.....	.....	..	2·37	14·61	1 1	Excess starch, no weeds	47611	Low in fat. Should be sold as feed flour.
.....	.....	.....	.....	2·60	15·14	2·8	" ..	47612	Low in fat. Pass.
.....	.....	.....	4·72	.....	18·11	5·4	As claimed, no weed seeds.	47613	Genuine.
.....	.....	.....	4·24	.....	15·31	5·5	" ..	47614	"
.....	.....	.....	2·56	.....	7·52	18·8	Excess oat hulls, no seeds.	47615	Low in proteids, high in fibre. Adulterated.
.....	.....	.....	2·56	..	9·59	9·4	As claimed, no seeds ..	47616	Genuine.
.....	.....	.....	.....	1·59	4·51	27·0	Excess hulls, no seeds.	47617	Low in fat and proteids, high in fibre. Adulterated
.....	.....	.....	...	1·98	13·04	0·8	Chiefly flour, no seeds.	47618	Low in fat and proteids. Should be sold as feed flour.
.....	.....	..	4·08	.....	16·45	9·9	As claimed, no weed seeds.	47619	Genuine.
6·02	18·38	7·99	4·48	.....	18 00	7·1	" ..	47620	"
.....	...	.....	.....	2·28	13·71	1·0	Chiefly flour.....	47621	Low in fat and proteids; should be sold as feed flour.
.....	.....	.....	4·00	.....	17·46	7·0	As claimed, no weed seeds.	47622	Genuine.
.....	.....	.....	3·52	.....	14 04	10·3	" ..	47623	"
.....	.....	.....	3·60	.....	10·19	10·6	Excess hulls, no weed seeds.	47624	"
.....	.....	.....	3·64	.....	10·10	4·8	As claimed, no weed seeds.	47625	"
.....	.....	.....	4·12	..	14·57	11·3	" ..	47626	"
.....	.....	.....	...	3·44	18·46	6·8	" ..	47627	"
5·50	-16·82	-10·86	4·44	.....	15·53	10·0	" ..	47630	Genuine.

APPENDIX II.

BULLETIN No. 232—COCA-COLA (SYRUP).

OTTAWA, February 12, 1912.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—It has frequently been suspected that cocaine might be present, as such, in the beverage known as Coca-Cola, and representations to this effect have several times been made to this department. In consequence of these complaints I have more than once examined the article, as found in the local market; and on the 14th July, 1910, I reported to you the results of inspection as follows:—

'I beg to refer to yours of the 15th April (L. 69721) on the subject of Coca-Cola; also to a further letter (L. 71528) dated 15th June, touching the same matter.

'Since receipt of these letters I have had correspondence with various persons, with a view to getting, at first hand, information regarding analysis, &c., and would specially acknowledge the courtesy of W. C. Gordonsmith, City Editor of the *Witness*, Montreal.

'The only definite information regarding the composition of Coca-Cola which I have been able to get, is as follows:—

'*Dr. Charles A. Crampton,* chemist to the Internal Revenue, Washington:—

"The content of caffeine is about 16/100 of one per cent. The other constituents were cocaine in a small amount, and theobromine in a small amount." (Quoted by Dr. H. W. Wiley, in a letter to Mr. Gordonsmith, dated 17th May, 1910.)

In the same letter Dr. Wiley says:—'No report or other publication, setting forth the composition of this product (Coca-Cola) has been published by the department up to the present time.'

'*Farmer's Bulletin* 393, Department of Agriculture, Washington, issued April 29, 1910, gives, in very general terms, a popular presentation of the subject of Medicated Soft Drinks, but contains no analytical data.

'*The Report of the Chemist* (Dr. H. W. Wiley), Department of Agriculture, Washington, for 1908, contains at page 28 the following statement: 'Among 80 samples of soft drinks, a considerable number were free from cocaine; and when its presence was established, the amount varied from a trace to 0·05 grain to the ounce.'

'*Document* 644, (Senate of U. S. A., 1908-9), at p. 372 gives a list of 39 kinds of so-called "Soft Drinks" sold in the United States, which were found to contain caffeine and extract of coca leaf. It is not stated that the alkaloid cocaine was found in any of these samples. Some are claimed to be prepared from a decocainized coca leaf, the refuse product discarded in the manufacture of cocaine.

'The Montreal *Witness* of April 9, 1910, contains an article on Coca-Cola, in which the following statement occurs:—

'Analysis revealed that in each glass of Coca-Cola there is from one to one and a half grains of caffeine, one four hundreth (1/400) of a grain of cocaine, &c." A large "glass" may be taken as contaning about 14 fluid ounces, or nearly 400 cubic centimetres. On this basis, the above statements would mean that in Coca-Cola there is present 0·024 per cent of caffeine and 0·00004 per cent of cocaine (weight in volume.)

I have caused four samples of Coca-Cola (purchased in Ottawa, and bottled in Montreal under the authority of the Coca-Cola Co., of Atlanta, Ga.), to be very carefully examined in this laboratory, for caffeine and cocaine. Working upon quantities of 200 cubic centimetres, the following percentages of caffeine were separated and identified. In three samples, 0·005 per cent; in one sample 0·0055 per cent weight in volume.

In none of these samples could cocaine be detected. By working upon samples to which cocaine, in known quantity, was intentionally added, it was found that the separation and identification of cocaine (in volumes 200 cc.) are not possible, when the quantity present is less than 0·0005 per cent, *i.e.*, one milligramme per 200 cubic centimetres. The certain detection of so small an amount as 0·00004 per cent of cocaine would therefore involve the use of at least 5 litres of the original sample. In the absence of certified statements, and description of the method of working, I am compelled to doubt the scientific value of work done under such conditions.

The minimum dose of cocaine (Hydrochloride) given in the British *Pharmacopœia* is ($\frac{1}{6}$) one-sixth of a grain, and this may be assumed to be the least quantity which is physiologically active. The highest amount quoted by Dr. Wiley (Report 1908) as found in soft drinks is five one-hundredths (0·05) of a grain per ounce; which for a glass (14 oz.) would amount to a dosage of seven-tenths (0·7) grain. This is far in excess of safety, and might even be fatal. The amount ($\frac{1}{400}$ grain per glass) quoted in Senate Document 644 is, as already stated, so small as to escape detection, by analytical methods, unless work is done upon volumes exceeding 5 litres. Whether such an amount could have any influence in forming the so-called 'cocaine habit,' I am unable to decide. It is certain that the physiological significance of this quantity must be infinitesimally small, if not actually *nil*.

It would therefore appear that the article, as sold in bottles, is either entirely free from cocaine, or contains so insignificant a trace of the alkaloid as to be negligible.

More recently it has been urged that, although practically absent from the beverage as sold in bottles, cocaine might be present in the syrup supplied to soda fountains.

In order to determine this point, 68 samples of such syrup were purchased, in different parts of Canada, in October and November last; and these have been subjected to analysis, with the result that no cocaine has been found in any of them. Caffeine has been found in all of them, in amount varying from 0·15 to 0·72 of a grain per ounce. The average amount is about 0·60 grain per ounce of the syrup. So far as I can learn, this is the usual amount of syrup employed in making a glass of the beverage. The pharmacopœal dose of caffeine is 1 to 5 grains; so that the quantity present in a glass of Coca-Cola, as supplied at fountains is well within the limit of safety.

I beg to recommend the publication of this report as Bulletin No. 232.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 232—COCA-COLA.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion.)	Results of Analysis. Cocaine.	Results of Analysis. Caffeine per ounce grains.	No. of Sample.
DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.											
1911.									p. c.	p. c.	
Oct. 26	Coca-Cola	46735	Wm. Patrick, Halifax, N.S.	8 oz.	15	Unknown	N. D. & C. Co., Halifax, N.S.		Samples lost.		46735
" 26	"	46736	A. H. Buckley, Halifax, N.S.	12 "	30	Coca-Cola Co., Georgia, U.S.A.	"		None	0·69	46736
Nov. 9	"	46737	A. N. Melitides, Halifax, N.S.	12 "	20	Unknown	"		"	0·56	46737
" 13	"	46738	C. A. Mumford, Halifax, N.S.	12 "	50	Coca-Cola, Atlanta, Georgia, U.S.A.	"		"	0·64	46738
" 13	"	46739	T. M. Power, Halifax, N.S.	8 "	20	"	"		"	0·63	46739
DISTRICT OF PRINCE EDWARD ISLAND—WM. A. WEEKS, INSPECTOR.											
Oct. 16	Coca-Cola	46086	J. G. Jameson, Charlottetown, P.E.I.	12 oz.	60	Home Office, Atlanta			None	0·67	46086
" 16	"	46087	Johnson & Johnson	12 "	60	Unknown			"	0·54	46087
" 26	"	46088	E. J. DesRoches, Charlottetown, P.E.I.	12 "	60		N. Rathenbury, Charlottetown, P.E.I.		"	0·63	46088

DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR.

Oct.	13	Coca-Cola	45520	Wm. Hawker & Son, St. John, N.B.	12 oz.	30	Coca-Cola Co., Toronto, Ont,			None	0·67	45520
"	21	"	45521	M. V. Paddock, St. John, N.B.	12 "	35	"			"	0·43	45521
Nov.	3	"	45522	Checchi Bros., St. Stephen, N.B.	12 "	30		Nat. Drug & Chem. Co., Ltd., St. John, N.B.		"	0·15	45522
"	7	"	45523	C. Fred. Chestnut, Fredericton, N.B.	12 "	60	Coca-Cola Co., Toronto, Ont.			"	0·47	45523
"	15	"	45524	Wm. McMullen, Moncton, N.B.	12 "	30	Coca-Cola Co., Philadelphia and Chicago, U.S.			"	0·56	45524

DISTRICT OF QUEBEC—F. X. W. E. BELAND, INSPECTOR.

Oct.	12	Coca-Cola	36978	New York Ice Cream Saloon, Quebec.	12 oz.	25	Coca-Cola, Toronto	Manufacturers.		None		
"	13	"	36979	Taury chesyreses, 74 Rue St. Jean, Quebec.	12 "	30	"	"		"	0·60	36979

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU, INSPECTOR.

Nov.	6	Coca-Cola	1159	Anastanos Bey Thetford Mines, P.Q.	1 pt.	40	The Coca-Cola Co., Toronto.					1159
"	9	"	1160	A. Ayoub, Sherbrooke	1 "	40		A. Shanngih, Sherbrooke.		None	0·50	1160
"	22	"	1161	M. Nicholson, Sorel	1 "	30	The Coca-Cola Co., Toronto.			"	0·63	1161
"	23	"	1162	Fourniezos & Co., St. Hyacinthe.	1 "	40	"			"	0·54	1162

DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.

Oct.	16	Coca-Cola	40901	S. Moisan, 661 St. Lawrence Blvd., Montreal.	¾ lb.	25	Coca-Cola Co., Montreal.			None	0·45	40901
"	16	"	40902	M. Nicholson, 481 St. Lawrence Blvd., Montreal.	¾ "	45	"			"	0·50	40902
"	16	"	40903	E. D. Howick, 63 St. Lawrence Blvd., Montreal.	¾ "	30				"	0·56	40903

BULLETIN No. 232—COCA-COLA.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis		No. of Sample.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Cocaine.	Caffeine per ounce grains.	
DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR—*Concluded.*											
1911.									p. c.	p. c.	
Oct. 16	Coca-Cola	40904	Coca-Cola Co., 391 St. Paul St., Montreal.	lb.	15	Vendors		This sample is vendors' second grade and is used in their product that is put up in small bottles.	None	0·45	40904
" 16	"	40905	"	"	15	"		This sample is vendors' first grade and is put up for use at soda fountains.	"	0·60	40905
DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.											
Oct. 9	Coca-Cola	49001	Estate W. H. Roger, Ottawa.	12 oz.	50	Coca-Cola Co., Toronto.	Manufacturers		None	0·60	49001
" 12	"	49002	W. F. Sparham, Arnprior.	12 "	50	"	"		"	0·60	49002
" 21	"	49003	S. J. Ladas & Co., Sparks St., Ottawa.	12 "	50	"	"		"	0·52	49003
" 21	"	49004	Allen & Cochrane, Sparks St., Ottawa.	12 "	50	"	"		"	0·45	49004
" 24	"	49005	The Coca-Cola Co., Sparks St., Ottawa.	12 "	30	Vendors	"		"	0·56	49005

DISTRICT OF KINGSTON—JAS. HOGAN, INSPECTOR.

Nov.	2	Coca-Cola	48532	Geo. Mahood, Kingston.	12 oz.	40		N. C. Polson, Kingston.		None	0·56	48532
"	3	"	48533	N. R. Grimm, Kingston	12 "	39		A. J. Aclean, Toronto.		"	0·64	48533
"	3	"	48534	M. P. Pappas & Co., Kingston.	12 "	30		Coca-Cola Co., Toronto.		"	0·64	48534
"	3	"	48535	T. Sakells, Kingston	12 "	30		T. McMahon, Toronto.		"	0·45	48535
"	3	"	48536	Geo. Masoud, Kingston	12 "	30		N. C. Polson, Kingston.		"	0·69	48536

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

Oct.	16	Coca-Cola	49310	The Hennessey Drug Stores Ltd., Hamilton.	¾ lb.	25		Coca-Cola, Atlanta, N.S.		None	0·56	49310
"	20	"	49311	F. H. Webb, 714 Queen St. East Toronto.	12 oz.	30		Coca-Cola, Co., Toronto.		"	0·54	49311
"	20	"	49312	Bruce & Hunt Co., Ltd., 466 Spadina Ave, Toronto	12 "	40		" "		"	0·43	49312
"	24	"	49313	Dumas Bros., Owen Sound	¾ lb.	25	Unknown	Unknown		"	0·43	49313
Nov.	2	"	49314	D. M. Tod, Oshawa	¾ "	30		W. G. Patrick, Toronto.		"	0·52	49314

DISTRICT OF LONDON, JNO. TALBOT, INSPECTOR.

Oct.	23	Coca-Cola	47855	Fawkes & Son, London	12 oz.	25		Coca-Cola, Co., Toronto.		None	0·52	47855
"	23	"	47856	E. Boomer, London	12 "	20		" "		"	0·50	47856
"	23	"	47857	Geo. Peters, London	12 "	20		" "		"	0·56	47857
"	23	"	47858	R. Willis & Son, London, East.	12 "	25		" "		"	0·72	47858

DISTRICT OF MANITOBA, A. C., LARIVIÈRE, INSPECTOR.

Nov.	13	Coca-Cola	47474	Julius Bros, Winnipeg	12 oz.	15	The Coca-Cola, Co., Toronto.	Unknown		None	0·47	47474
"	13	"	47475	Andrews Drug Store, Winnipeg.	12 "	50	" "			"	0·67	47475
"	13	"	47476	The Gordon Mitchell Drug Co., Winnipeg.	12 "	15			Solds as, Gay-ola	"	0·72	47476
"	13	"	47477	Olympia Restaurant, Winnipeg.	12 "	20	Unknown	The Bole Drug Co., Winnipeg.		"	0·52	47477
"	13	"	47478	Alberta Café, Winnipeg.	12 "	35	"	Unknown		"	0·52	47478

BULLETIN No. 232—COCA-COLA.

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	(Inspector's Report is not an expression of opinion).	Results of Analysis. Cocaine.	Caffeine per ounce grains.	No. of Sample.
DISTRICT OF CALGARY, R. W. FLETCHER, INSPECTOR.											
1911.											
Nov. 8	Coca-Cola	44001	Cameron Bros., Medicine Hat.	12 oz.	25	Coca-Cola Co., Atlanta, Georgia, N.S.			None	0·50	44001
" 8	"	44002	E. B. Lively, Medic. Hat.	12 "	25	" "			"	0·52	44002
" 8	"	44003	F. B. McKinnon, Med. Hat.	12 "	25	" "			"	0·63	44003
" 14	"	44004	J. Findlay Drug Co., Ltd., Calgary.	12 "	25	"			"	0·61	44004
" 14	"	44005	F. Rochon, Calgary	12 "	25	" "			"	0·56	44005
DISTRICT OF NELSON—THOS. PARKER, INSPECTOR.											
1911.									p. c.	p. c.	
Oct. 19	Coca-Cola	48447	F. R. Waylitt Este, Fernie, B.C.	12 oz.	40	The Coca-Cola Co., Atlanta, U.S.			None	0·56	48447
" 19	"	48448	J. Wood, Fernie, B.C.	12 "	45	"			"	0·56	48448
" 27	"	48457	S. G. Hunt Este, Rossland.	12 "	45	"			"	0·63	48457
" 28	"	48483	C. H. Bean, Nelson, B.C.	12 "	45	"			"	0·52	48483
" 28	"	48485	Poole Drug Co., Nelson, B.C.	12 "	50	"			"	0·69	48485

DISTRICT OF VANCOUVER—J. F. POWER, INSPECTOR.

Oct.	17	Coca-Cola	38210	Harrison's Drug Store, Granville St., Vancouver	12 oz.	25	Healy Impt. Co., Vancouver.	.....	None	0·56	38210
"	18	"	38211	Campbell Drug Co., Ltd., Granville St., Vancouver	12 "	45	Coca-Cola Co., Toronto.	.....	"	0·59	38211
"	18	"	38212	C. V. Orme, 2031 Granville St., Vanc.	12 "	50	.....	Kelly, Douglas, Vancouver.	"	0·72	38212
"	18	"	38213	A. Almond, Granville St., Vancouver.	12 "	50	.....	Donnelly, Watson & Brown, Vancouver	"	0·52	38213
"	18	"	38214	C. A. Hardt, Woods Pharmacy, Vancouver.	12 "	25	.....	Kelly, Douglas, Vancouver.	"	0·45	38214

DISTRICT OF VICTORIA—D. O'SULLIVAN, INSPECTOR.

Nov.	20	Coca-Cola	47676	H. A. Lilly, Victoria, B.C.	12 oz.	50	.....	Kelly, Douglas Co., Vancouver.	None	0·72	47676
"	21	"	47677	U. Stramatares, Victoria, B.C.	12 "	50	.....	Geo. Carter, Victoria, B.C.	"	0·60	47677
"	21	"	47678	A. Bancroft, Victoria, B.C.	12 "	50	.....	Kelly, Douglas Co., Vancouver.	"	0·5	47678
"	22	"	47679	Harcop & Antipas, Victoria, B.C.	12 "	50	.....	The Healy Imp. Co., Vancouver.	"	0·43	47679
"	22	"	47680	Ivils Pharmacy, Victoria, B.C.	12 "	50	.....	Nat. Drug and Chem. Co., Victoria, B.C.	"	0·56	47680

APPENDIX I.

BULLETIN No. 233—MARMALADES.

OTTAWA, February 13, 1912.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you herewith a report upon 154 samples of marmalade, collected throughout Canada in April of last year. This report has been much delayed through the short-handedness of the staff of these laboratories; and the fact that more perishable articles had to be given priority.

Two samples were unfortunately destroyed by rats, whose ravages upon the labels were such as to make identification of the samples uncertain.

All samples, except nine, are orange marmalades.

One hundred and thirty-eight (138) samples are found to be genuine, in the sense that they consist of fruit and sugar. Fourteen (14) samples contain glucose, but in very varying amounts, as follows:—

	Samples.
Traces only	2
About 2 per cent	1
" 3 "	3
" 5 "	3
" 10 "	2
" 25 "	3
	14

Owing to the indefinite character of commercial glucose it is impossible to state the percentage admixture with exactitude. The numbers given above are calculated from work done upon a sample of glucose syrup, known to the trade as 43°.

In sample 40615 (10 per cent) the presence of glucose is declared. Under modern methods of manufacture, glucose is a perfectly wholesome article of food. It consists mainly of dextrose (grape sugar) with varying quantities of dextrin (8 to 20 per cent. *See* Bulletin 96, p. 18). In ordinary processes of digestion, cane sugar (sucrose) is changed into glucose, and dextrin is produced by the action of ptyalin (the amylolytic enzyme of saliva) on starchy foods. Both glucose and dextrin are therefore nutritious foods, and are normally contained in every meal we eat, if not

as such, yet as results of digestion of sugar and starch. There can be no sufficient reason, on the ground of wholesomeness for objecting to commercial glucose as a component of jam or marmalade.

Owing, however, to the fact that jams and marmalade were known long before glucose, it is right and proper to define jam and marmalade in conformity with accepted usage, as consisting of fruit and sugar only. If, as is claimed by many manufacturers, the addition of glucose actually improves the quality of jams and marmalades, there can be no reason for withholding a statement of the fact of its presence. The improved character of the article (if this is fact) should be sufficient justification for the introduction of the new ingredient.

In the meantime, it is necessary to describe jams which contain glucose without declaration of the fact, as adulterated under the Act, in that a cheaper substance than sugar has been in part substituted for sugar. (Sec. 3*b*). This is merely technical adulteration, and does not mean that, as an article of food, the jam or marmalade is less nutritious or wholesome.

I beg to recommend the publication of this report as Bulletin No. 233.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Solids Insoluble.
DISTRICT OF NOVA SCOTIA—									
1911.									p. c.
April 19	Marmalade	42286	Wm. Law & Co., Yarmouth, N.S.	3 jars.	45	Crosse & Blackwell, London. Eng.	Manuf'rers.		1·40
" 20	"	42287	Wentworth Stores, Ltd., Windsor, N. S.	3 "	60	Aylmer Canning Co., Aylmer, Ont.	R. B. Seeton &Co., Halifax, N.S.		2 54
" 24	"	42290	Bauld Bros., Ltd., Halifax, N.S.	3 "	45	Chivers&Sons, Histon, Eng.	Manuf'rers.		1·50
" 24	"	42291	J. F. Crowe & Co., Ltd., Halifax, N. S.	3 "	38	J. Robertson & Sons, London, Eng.	"		1·09
" 24	"	42292	Wentzells, Ltd., Halifax, N.S.	3 "	45	W.P. Hartley, London, Eng.	"		1 35
" 24	"	42293	F. W. Hodgson, Halifax, N.S.	3 "	45	C.&E. Morton, London, Eng.	J. W. Goreham, Halifax, N.S.		1·57
" 25	"	42294	R. B. Seeton & Co., Halifax, N.S.	3 "	40	J. Robertson & Sons, London, Eng.	Manuf'rers.		1·40
" 25	"	42295	Chisholm & Co., Halifax, N.S.	3 "	55	Jas. Keiller & Son, Dundee, Scot.	"		1·34
" 26	"	42296	A. & W. Smith & Co., Halifax, N.S.	3 "	40	J. Robertson & Son, London, Eng.	J. W. Goreham, Halifax, N.S.		1·05
" 26	"	42297	Payzant & King, Halifax, N.S.	3 "	25	T. Upton, Hamilton, Ont.	Manuf'rers.	Upton's Orange Marmalade.	1·24
DISTRICT OF PRINCE EDWARD ISLAND—									
April 6	Marmalade	46021	W. W. Walker, Charlottetown.	3 jars.	60	Shirriffs, Toronto.		Shirriffs Orange Marmalade.	0·95
" 6	"	46022	J. C. Crabbe, Charl'town.	3 "	54	Chivers &Sons, Cambridge, Eng.		Chivers pure OrangeMarmalade.	3·29
" 8	"	46023	L. A. Haszard, Charl'town.	3 "	60	W.P. Hartley, Ltd., Liverpool, Eng.		Guaranteed absolutely pure Orange Marmalade.	1·11
" 8	"	46024	M. Duffy, Charl'town.	3 "	45	Sugars, Ltd., Montreal.		Seville Orange Marmalade.	5·42

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
R. J. WAUGH, INSPECTOR.												
p. c.	p. c.	p. c.				p. c.	p. c.					
61·75	63·15	36·85	+ 6·9	−16·9	23·8	17·9	43·85	None.	None.	Orange tissues	42286	Genuine.
59·35	61·89	38·11	+27·3	−14·1	41·4	31·2	28·15	" .	" .	" ..	42287	Contains about 3 p.c. glucose, technically adulterated. An old sample.
70·85	72·35	27·65	+12·9	−24·0	33·3	25·1	45·73	" .	" .	" ..	42290	Genuine.
74·80	75·89	24·11	+28·8	−18·7	47·5	35·7	40·19	" .	" .	" .	42291	"
68·50	69·85	30·15	+23·0	−19·8	42·8	32·2	36·30	" .	" .	" ..	42292	"
67·80	69·37	30·63	+ 8·6	−10·6	19·2	14·4	53·40	" .	" .	" .	42293	Contains about 5 p.c. glucose, technically adulterated.
71·30	72·70	27·30	+34·3	−19·0	53·3	39·9	31·40	" .	" .	" ..	42294	Genuine.
68·65	69·99	30·01	+13·0	−21·8	34·8	26·1	42·75	" .	" .	" ..	42295	"
79 75	80·80	19·20	+30·2	−17·3	47·5	35·8	43·95	" .	" .	" ..	42296	"
74·50	75·74	24·26	+61·2	+25·6	35·6	26·8	47·70	" .	" .	" ..	42297	Contains about 25 p.c. glucose, technically adulterated. A very old sample.
THEO. MOORE, INSPECTOR.												
73·96	74·91	25·09	+11·2	−20·6	31·8	23·7	50·26	None.	None.	Orange tissues	46021	Genuine.
83·76	87·06	12·94	+14·0	−18·0	32·0	23·8	59·96	" .	" .	" ..	46022	"
73·34	74·46	25·54	+14 9	−18·7	33·6	25·0	48·34	" .	" .	" ..	46023	"
8·74	74·17	25·83	+ 8·0	−21·0	29·0	21·9	46·84	" .	" .	" ..	46024	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion).	Solids Insoluble.
									DISTRICT OF PRINCE EDWARD ISLAND—
1911.									p. c.
April 10	Marmalade.	46025	C. C. Carlton, Souris.	3 jars	45	Inglis, Montreal.	.....	Inglis Homemade Orange Marmalade.	2·88
" 11	" ..	46026	Sterns Bros., Souris.	3 "	66	J. Stephens & Son, Gloucester, Eng.	.....	Guaranteed Orange Marmalade.	....
" 11	" ..	46027	Mathew & McLean, Souris.	3 "	54	J. W. Windsor, Montreal.	.....	Balmoral Scotch Marmalade.	3·49
" 25	" ..	46028	Sinclair & Stewart, Summerside.	3 "	36	T. Upton & Co., Hamilton, Ont.	.....	Upton pure Orange Marmalade.	2·38
" 25	" ..	46029	Brace & McKay, Summerside.	3 "	60	Crosse & Blackwell, London, Eng.	.....	Pure Orange Marmalade.	1·92
" 27	" ..	46030	John McKenna, Charlottetetown.	3 "	60	T. J. Lipton, England.	.....	Orange Marmalade.	1·65
									DISTRICT OF NEW BRUNSWICK—
Mar. 27	Marmalade.	45444	H. W. Cole, Ltd., St. John, N.B..	3 jars.	45	Crosse & Blackwell, London, Eng.	.....	C. & B. Orange Marmalade.	1·04
" 27	" ..	45445	Puddington, Wetmore, Morrison, Ltd., St. John, N.B.	"	35	Sugars & Canners, Ltd., Montreal.	.....	Diamond Orange Marmalade.	2 76
" 28	" .	45446	Baird & Peters, St. John. N. B.	"	38	John Stephens Son & Co., Ltd., Gloucester, Eng.	.....	Orange Marmalade.	1·61
April 10	" ..	45447	G. T. Whelpley Estate, Fredericton, N. B.	"	54	W. P. Hartley, Liverpool and London.	.....	"	1·44
" 11	" ..	45448	J. Rankin Brown, Woodstock, N.B.	"	75	Jas. Keiller & Sons, Ltd., Dundee, Scot	.....	"Dundee" Marmalade.	1·11
" 13	..	45449	D. R. Bedell, Andover, N. B.	"	75	"	.....	"	1·59
" 13	..	45450	H. N. Dickinson, Perth, N.B.	"	60	C. & E. Morton, Leadenhall St., London, Eng.	.....	Morton's Orange Marmalade.	1·92
" 19	..	45451	The Sussex Mercantile Co., Ltd., Sussex, N.B.	"	75	The T. Upton Co., Ltd., Hamilton, Ont.	.....	Upton's Orange Marmalade.	1·81

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20°C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
THEO. MOORE, INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
63·85	66·73	33·27	+27·7	−19·0	46·7	35·2	28·65	None.	None.	Orange tissues	46025	Genuine.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	46026	Samples destroyed by rats.
65·90	69·39	30·61	+17·0	−10·5	27·5	20·7	45·20	" .	" .	" ..	46027	Contains about 5 p.c. glucose, technically adulterated.
69·80	72·18	27·82	+38·8	−23·6	62·4	47·0	22·80	" .	" .	" ..	46028	Genuine.
65·50	67·42	32·58	+18·7	−21·8	40·5	30·5	35·00	" .	" .	" .	46029	"
70·35	72·00	28·00	+19·0	−22·4	41·4	31·2	39·15	" .	" .	" ..	46030	"
J. C. FERGUSON, INSPECTOR.												
64·20	65.24	34·76	+26·5	−20·7	47·2	35·5	28·70	None.	None.	Orange tissues.	45444	Genuine.
66·45	69·21	30·79	+18·2	−13·2	31·4	23 6	42·85	"	"	"	45445	Contains about 3% glucose technically adulterated.
61·80	63·41	36·59	+43·7	+ 7·1	36·6	27·5	34·30	"	"	"	45446	Contains about 10% glucose technically adulterated.
73·25	74·69	25·31	+25·0	−23·0	48·0	36·1	37·15	"	"	"	45447	Genuine.
66·50	67·61	32·39	2·9	−20·2	23·1	17·3	49·20	"	"	"	45448	"
69·30	70·89	29·11	+24·4	−24·4	48·8	36·7	32·60	"	"	"	45449	"
51·95	53·87	46·13	+ 2·9	−19·0	21·9	16·5	35·45	"	"	"	45450	"
63·30	65·11	34·89	+32·8	−19·8	52·6	39·9	23·40	"	"	"	45451	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturers	Furnisher.	Inspector's Report. (Is not an expression of opinion.)	Solids Insoluble.
DISTRICT OF NEW BRUNSWICK—									
1911.									p. c.
April 20	Marmalade.	45452	D. A. McBeath, Moncton, N. B.	3 jars.	54	Chivers & Sons Ltd., Histon, Cambridge, Eng.	.....	Chiver's Pure Orange Marmalade.	1·67
" 21	" ..	45453	S. A. Russell, Newcastle. N.B.	"	75	Cairns, Faisley, Scotland	.....	Cairn's finest Scotch Home-made Marmalade.	1·41
DISTRICT OF QUEBEC—									
Mar. 29	Marmalade.	36901	O. Lacroix, 19 Rue St. Joseph, Que.	3 jars.	24	Wm. P. Hartley, Liverpool.	J B Reneaud & Cie.	.....	1·22
" 29	" ..	36902	"	"	45	Alymer, Canning Co.	Manuf'rers.	.....	2·21
" 29	" ..	36903	"	"	30	Uptons, Hamilton.	J B Reneaud & Cie.	.....	2·10
April 3	" ..	36904	Chas. E. Riverin, 55 Rue de la Couronne, Quebec.	"	75	Chivers & Sons Histon, Cambridge, Eng.	Turcot et Frére.	.....	1·68
" 3	" ..	36905	"	"	75	Jas. Keiller & Son, Dundee.	N. Rioux & Cie.	.....	1·27
" 4	" ..	36906	Myrand and Pouliot, 70 Rue de la Couronne, Quebec.	"	36	Aylmer Canning Co., Hamilton.	Unknown.	.....	1·90
" 4	" ..	36907	"	"	75	Chivers & Sons Histon, Cambridge, Eng.	J B Reneaud & Cie.	.....	0·60
" 4	" ..	36908	"	"	75	E. D. Smith, Winona, Ont.	"	.....	0·95
" 4	" ..	36909	"	"	75	Jas. Keiller & Son, Dundee.	N. Rivoux & Cie.	.....	1·46
" 4	" ..	36910	"	"	75	Thos. Lipton, London.	Manuf'rers.	.....	1·97
DISTRICT OF ST. HYACINTHE—									
Apr. 24	Marmalade..	38912	J. O. Fagnan, Sorel.	3 jars.	60	Crosse & Blackwell, London Eng.	.....	Orange Marmalade.	1·21
" 25	"	38913	J. S. Baillargeon, Farnham.	3 "	54	St. Louis Preserving Co., Ltd., Ville St. Louis, Montreal.	.....	"	3·93

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
J. C. FERGUSON, INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
64·45	66·12	33·88	+18·7	−22·2	40·9	30·9	33·55	None.	None.	Orange tissues	45452	Genuine.
67·55	68·96	31·04	+ 7·2	−23·9	31·1	23·2	44·35	"	"	"	45453	"
F. X. W. E. BELAND, INSPECTOR.												
70·55	71·77	28·23	+24·5	−20·7	45·2	34·3	36·25	None.	None.	Orange tissue.	36901	Genuine.
67·90	70·11	29·89	50·4	−18·7	69·1	52·0	15·90	"	"	"	36902	"
56·50	58·60	41·40	+ 4·6	−15·5	20·1	15·1	41·40	"	"	"	36903	"
72·10	73·78	26·22	+13·0	−23·3	36·3	27·3	44·80	"	"	"	36904	"
72·30	73·57	26·43	+11·5	−21·5	33·0	24·8	47·50	"	"	"	36905	"
58·00	59·90	40·10	+ 9·0	−10·6	19·6	14·8	43·2	"	"	"	36906	Contains about 3% glucose technically adulterated. An old sample.
71·05	71·65	28·35	+10·0	−21·9	31·9	24·0	47·05	"	"	"	36907	Genuine.
74·30	75·25	24·75	+28·3	−19·0	47·3	35·7	38·60	"	"	"	36908	"
69·55	71·01	28·99	+ 4·3	−23·6	27·9	21·0	48·55	"	"	"	36909	"
67·75	69·72	30·28	+18·7	−22·7	41·4	31·2	36·55	"	"	"	36910	"
J. C. ROULEAU—INSPECTOR.												
65·55	66·76	33·24	+ 4·3	−22·2	26·5	19·9	46·86	None.	None.	Orange tissues.	38912	Genuine.
66·05	69·98	30·02	+30·4	−20·4	50·8	38·2	27·85	"	"	"	38913	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Solids Insoluble.
									DISTRICT OF ST. HYACINTHE—
1911.									p. c.
April 26	Marmalade.	38914	E. Rodier, St. Jean.	3 jars.	45	T. Upton Co. Ltd., Hamilton.	.....	Orange mar-	1·92
" 26	" .	38915	J. T. Rolland, Bedford.	3 "	39	" .	.....	" .	1·96
" 27	" .	38916	C. Vincent, Granby.	3 "	60	Shirriffs, Toronto.	.....	Imperial Scotch Marmalade.	2·15
May 2	" .	38917	J. O. Montplaisir, Drummondville.	3 "	60	Cairns, Paisley	.....	.....	0 96
" 3	" .	38919	Hoskins & O'Reagan, Sutton.	3 "	60	Wm. P. Hartley, London, Eng.	.....	.....	1·40
" 4	" .	38920	H. F. Barlow, Magog.	3 "	45	T. Upton Co. Ltd., Hamilton, Ont.	.....	Orange Marmalade.	2·15
" 5	" .	38921	C. O. Genest, & Fils, Sherbrooke.	3 "	45	Wagstaffe Ltd, Hamilton, Ont.	.....	.....	1·87
" 23	" .	38922	S. N. Fontenault, Marieville.	3 "	69	Chivers & Sons Ltd., Eng.	.....	.....	2·64
									DISTRICT OF MONTREAL—
Mar. 24	Marmalade..	40611	J. E. Belisle, 129 Wellington St., Montreal.	3 jars.	45	Aylmer Canning Co. Aylmer, Ont.	.....	Scotch Marmalade.	3·28
25	" .	40612	A. Rochon, 25 Prince Arthur, E, Montreal.	3 "	45	Millward & Bentley, Montreal.	.....	.....	2·39
" 25	"	40613	J. Gariepy, 101 Prince Arthur E., Montreal.	3 "	30	Uptons.....	.....	.....	1·44
" 27	" .	40614	S. L. Desaulniers, 437 Notre Dame E., Montreal	3 "	30	Sugars Ltd., Montreal.	.....	"Oval" Brand	1 74
Apr. 10	" .	40615	Murphy Bros., 531 St. Catherine St., Montreal.	3 "	30	Inglis, Montreal.	.....	.....	6·02
" 10	" .	40615	Co-operative Grocery Co., 293 St. Antoine St., Montreal.	3 "	30	Vendors	.....	Labelled, Widow Robins Home made *fine Compound.*	3·90

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
J. C. ROULEAU, INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
66·75	68·67	31·33	+28·2	−20·7	48·9	36·09	29·85	None.	None.	Orange tissues.	38914	Genuine.
64·60	66·56	33·44	+25·0	−18·2	43 2	32·4	32·20	" .	" .	" .	38915	"
68·32	70·48	29·52	+20.8	−20·0	40·8	30·8	37·52	" .	" .	" .	38916	"
68·85	69·81	30·19	− 6·2	−21·4	15·2	11·4	57·45	" .	" .	" .	38917	"
72·75	74·15	25·85	+18·8	−19·4	38·2	28·5	44·25	" .	" .	" .	38919	"
66·85	69·00	31·00	+13·8	−19·8	33·6	25·3	41·55	" .	" .	" .	38920	
60·95	62·82	37·16	+ 8·1	−19·8	27·9	21·0	39·95	" .	" .	" .	38921	"
66·95	69·59	30·41	+ 4·2	−19·6	26·8	20·2	46·75	" .	"	" .	38922	"
J. J. COSTIGAN—INSPECTOR.												
58·00	61·28	38·72	− 7·0	−15·4	8·4	6·3	51·70	None.	None.	Orange tissues.	40611	Genuine.
60·00	62·39	37·61	+ 2·9	−20·7	23·6	17·7	42·30	" .	" .	" .	40612	"
71·00	72·44	27·56	+31·6	−21·6	53·2	40·1	30·90	" .	" .	" .	40613	"
73·60	75·34	24·66	+31·1	−21·3	52·4	39·5	35·84	" .	" .	" .	40614	"
61·50	67·52	32·48	+22·7	−21·3	44·0	33·1	28·40	" .	" .	" .	40615	"
59·65	63·55	36·45	+28·5	− 1·8	30·3	22·9	36·75	" .	" .	Orange & Grape Fruit.	[d]40615	Orange and Grape fruit, containes about 10 p. c. glucose, declared.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer of Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).	Solids Insoluble.
									DISTRICT OF MONTREAL—
1911.									p. c.
April 10	Strawberry Jam.	40616	Beauvais Lalonde & Co., 482 St. James St, Montreal	3 jars.	60	.....	.....	Gazelle Brand	12·86
" 11	Marmalade..	40617	R. L. Watkins 789 St. Lawrence B. Montreal.	3 "	38	Vendor.....	.....	.....	9·67
" 11	"	40618	E. Brais, 709 St. Lawrence B., Montreal	3 "	30	Mrs. Luke, Montreal.	.....	.....	2·39
" 11	"	40619	J. L. Desaulniers, 492 St. Lawrence B. Montreal.	3 "	45	Aylmer Canning Co., Hamilton, Ont.	.....	Canada First.	5·63
									DISTRICT OF OTTAWA—
April 3	Marmalade.	43211	Lucas & McLeary, Smiths Falls.	3 jars.	30	The T. A. Lytle Co., Ltd., Toronto.	Robertson Nicolle, Smiths Falls.	Orange Marmalade.	0.75
" 3	"	43212	Williams & Vauluven Smiths Falls	3 "	36	T. Upton Co. Ltd., Hamilton.	Gilmour & Co., Brockville.	Uptons pure OrangeMarmalade.	5.23
" 4	"	43213	Gloucester Trading Co., Rideau St., Ottawa.	3 "	75	Jas Robertson & Son, London, Eng.	H.N. Bate & Sons, Ottawa.	Robertsons Pineapple Marmalade.	7.93
" 4	"	43214	A. E. Rea & Co., Ltd., Rideau St., Ottawa.	3 "	105	Wagstaffes, Hamilton.	BalfourSmyl & Co., Hamilton.	Wagstaffes Fig Marmalade.	6.28
" 4	"	43215	Alex. Phillips, Rochester St., Ottawa.	3 "	75		Manuf'rers..	Ginger Marmalade.	9.21
" 5	"	43216	J. K. Whitelaw, Arnprior	3 "	30	S. Upton Co., Ltd., Hamilton.	Unknown...	Uptons pure OrangeMarmalade.	2.35
" 6	"	43217	R. McGregor, Ltd., Ottawa	3 "	53	Shirreffs, Toronto.	Manuf'rers..	Imperial Scotch Orange Marmalade.	2.31
6	"	43218	W. B. Graham, Ottawa.	3 "	75	Chivers & Sons Ltd., Histon Cambridge, Eng.	Unknown...	Orange Marmalade, labelled pure.	2.70
" 7	"	43219	P. C. Leslie & Co., Prescott	3 "	45	Canadian Preserving Co., Hamilton.	Manuf'rers..	Grahams "LilyBrand" pure Orange Marmalade.	2.27
" 7	"	43220	J. Whitley, Prescott.	3 "	60	Shirreffs, Toronto.		Imperial Scotch Orange Marmalade.	4.54

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
J. J. COSTIGAN, INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
63·10	75·96	24·04	+21·6	−21·6	43·2	32·5	30·60	None.	None.	Strawberry tissues.	40616	Strawberry jam—Genuine.
58·50	68·17	31·83	+17·3	−19·5	36·8	37·7	20·80	" .	" .	Orange tissues.	40617	Genuine.
63·95	66·24	33·76	− 1·0	−19·8	18·8	14·1	49·85	" .	" .	" .	40618	"
58·10	63·46	36·54	+21·6	−14·4	36·0	27·1	31·00	" .	" .	" .	40619	Contains about 2 p.c. glucose technically adulterated.
J. A. RICKEY—INSPECTOR.												
67.55	68.30	31 70	+36.1	−18.7	44.8	33.9	33.65	None.	None.	Orange tissues.	43211	Genuine.
67.40	72.63	27.37	+41.7	−22.2	63.9	48.1	19.30	"	"	"	43212	"
61.75	69.68	30.32	+18.7	−20.4	39.1	29.4	32.35	"	"	"	43213	Pineapple genuine.
62.50	68.78	31.22	+33.1	−17.2	50.3	37.9	24.60	"	"	"	43214	Green figs "
62.25	75.46	24.54	+34.5	−22.2	56.7	42.7	23.35	"	"	"	43215	Ginger genuine.
61·00	63.35	36.65	+27.4	−20.7	48.1	36.2	24.80	"	"	"	43216	Genuine.
69.40	71.71	28.29	+1.5	−22.8	24.3	18.0	51.40	"	"	"	43217	"
62.25	64.95	35.05	+4.3	−20.7	25.0	18.8	43.45	"	"	"	43218	"
63.50	65.77	34.23	+27.4	−19.9	47.3	35.7	27.80	"	"	"	43219	"
73.30	77.84	22.16	−3.2	−22.2	19.0	14.3	59.00	"	"	"	43220	"

Date of Collection.	Name of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Solids Insoluble.
									DISTRICT OF KINGSTON—
1911.									p.c.
Mar. 24	Marmalade.	47766	W. E. Hopkinson, Kingston	3 jars.	45	Grahams, Hamilton.	.....	.....	2.90
" 24	" ..	47768	L Murphy, Kingston.	3 "	75	Cross & Blackwell, London Eng.	.....	.....	1.28
" 24	" ..	47769	S. T. Kirk, Kingston.	3 "	30	Upton's Hamilton.	Fenwick Hendry Co., Kingston.	.....	2.38
" 24	" ..	47770	P. A. Haffner, Kingston.	3 "	45	Maconochie, Bros., London.	.....	.....	1.74
" 24	" ..	47771	J. McCulla, Kingston.	3 "	100	Millar & Co., Ltd.. Belfast Ireland.	.....	.....	.....
" 27	" ..	47772	R. Elvins, Belleville.	3 "	30	Upton's Hamilton.	.....	.....	1.18
" 27	" ..	47773	H. E. Fairfield, Belleville.	3 "	75	Maconochies, London.	.....	.....	1.60
" 27	" ..	47774	H. Crozier, Cobourg.	3 "	75	E. A. Smith, Winona.	.....	.....	2.54
" 28	" ..	47775	J. Curtis, Port Hope.	3 "	30	Upton's Hamilton.	.....	.....	1.26
" 24	" ..	47791	Geo. Gibson, Kingston.	3 "	30	"	Geo. Robertson & Son, Kingston.	.....	1.83
									DISTRICT OF TORONTO—
April 3	Marmalade..	47262	A. Rayner, Barrie.	3 jars.	30	T. Upton Co., Ltd, Hamilton.	.....	Upton's Pure Orange Marmalade.	2·35
" 3	" ..	47263	T. B. Cramp, Orillia.	3 "	60	The Canada Preserving Co., Ltd., Hamilton.	.....	Graham's Lily Brand Pure Orange Marmalade.	0·76
" 5	" ..	47264	Oliver Hubert, Penetanguishene.	3 "	45	Not named....	Jno. Jerson	.....	1·83
" 6	" ..	47265	W. J. Lyon, Queen st., East, Toronto.	3 "	30	Aylmer Canning and Preserving Co., Ltd.. Hamilton.	.....	Aylmer Scotch Marmalade, Absolutely Pure.	1·57
" 6	" ..	47266	R. Millar, 336 QueenSt., E., Toronto.	3 "	30	Mrs. A. E. Scott, Toronto.	.....	Home-made Orange Marmalade, Guaranteed Absolutely Pure.	6·88

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
JAS. HOGAN—INSPECTOR.												
p.c.	p.c.	p.c.				p.c.	p.c.					
65.25	68.15	31.85	+32.2	−23.6	55.8	42.0	23.25	None.	None.	Orange tissues.	47766	Genuine.
60.95	62.23	37.77	+4.3	−22.2	26.5	19.9	41.05	"	"	"	47768	"
73.90	76.28	23.72	+2.3	−24.8	22.5	16.9	57.00	"	"	"	47769	"
63.75	65.49	34.51	+28.2	−21.6	49.8	37.5	25.25	"	"	"	47770	"
.....	.....	.....	.....	.....	.....	.....	.....	"	"	"	47771	Samples destroyed by rats.
62.25	63.43	36.57	+52.4	−19.8	72.2	54.2	8.05	"	"	"	47772	Genuine remarkably high unchanged sugar.
57.05	58.65	41.35	+3.2	−17.8	21.0	15.80	41.25	"	"	"	47773	Genuine.
65.00	67.54	32.46	+28.2	−19.8	48·0	36.1	28.90	"	"	"	47774	"
68 90	70.16	29.84	+21.3	−22.7	44.0	33.1	35.80	"	"	"	47775	"
72.25	74.08	25.92	+34.0	−21.3	65.3	41.7	30.55	"	"	"	47791	"
H. J. DAGER, INSPECTOR.												
69·15	71·50	28·50	+25·9	−18·4	44·3	33·4	35·75	None.	None	Orange tissues.	47262	Genuine.
59·25	60·01	39·99	+20·7	−22·7	43·4	32·7	26·55	"	"	"	47263	"
66·15	67·98	32·02	−13·0	−20·7	7·7	5 8	60·35	"	"	"	47264	.
61·10	62·67	37·33	+ 2·0	−15·8	18·4	13·9	47·20	"	"	"	47265	Containing a trace of glucose.
63·75	70·63	29·37	+11·5	−20·7	32 2	24·2	38·55	"	"	"	47266	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Solids Insoluble.
DISTRICT OF TORONTO—									
1911.									p. c.
April 6	Marmalade.	47267	Bruce & Sanderson, 377 Parliament St., Toronto.	3 jars.	45	The Imperial Extract Co., Toronto.	.....	Shirriff's Imperial Scotch Marmalade.	2·67
" 6	"	47268	G. McKee, 564 College St., Toronto.	3 "	30	F. Simpson & Sons, Toronto.	.....	F. Simpson & Sons, Home-made Orange Marmalade.	5·69
" 10	"	47269	Wm. Smye, Jr., 75 Wellington St., Hamilton.	3 "	60	Wagstaffe, Ltd., Hamilton.	.....	Guaranteed not to contain colouring, preservatives or glucose.	4·35
" 10	"	47270	Geo. O. Elder, Mary St., N. Hamilton	3 "	45	E. D. Smith, Winona.	.....	Orange Marmalade.	4·33
" 11	"	47271	W. H. Rykman & Co., 19 McNabb, N. Hamilton	3 "	30	Not named.	.....	.....	2·65
DISTRICT OF LONDON—									
April 26	Marmalade.	48005	Stuebing & Son, Berlin.	3 jars.	60	Robertson's Paisley.	Jas. Lumbers & Co. Toronto.	Robertson's Scotch Marmalade.	1·26
" 26	"	48007	Randall & Roos, Berlin.	3 "	50	Jas. Keiller & Sons, Dundee.	.....	.....	1·56
" 26	"	48017	Betzner & Co., Berlin.	3 "	30	T. Upton Co., Hamilton.	.....	Upton's Pure Orange Marmalade.	1·87
" 26	"	48019	W. Yeats, Galt.	3 "	60	Maconochie Bros., London, Eng.	.....	Maconochie Bros. Seville Orange Marmalade	1·66
" 27	"	48027	Hollands & Macauley, Galt.	3 "	54	Canada Preserving Co., Hamilton.	.....	Graham's Lily Brand Pure Orange Marmalade.	1·32
" 25	"	48385	A. J. Groom, Guelph.	3 "	60	Wagstaffe, Hamilton.	.....	.....	2·33
" 25	"	48389	J. A. McCrea & Son, Guelph	3 "	30	Canada Preserving Co., Hamilton.	.....	.....	1·19
" 25	"	48390	J. M. Dooley, Guelph.	3	30	T. Upton Co., Hamilton.	.....	.....	1·49
" 25	"	48392	Guelph Co-operative Association, Guelph.	3 "	30	"	.....	Upton's Pure Orange Marmalade.	1·85

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
H. J. DAGER, INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
68·80	71·47	28·53	+18·1	−21·3	39·4	27·9	40·90	None.	None.	Orange tissues.	47267	Genuine.
65·40	71·09	28·91	+16·7	−19·0	35·7	26·4	39·00	"	"	"	47268	"
64·50	68·88	31·12	+27·9	−22·2	50·1	38·5	26·00	"	"	"	47269	"
65·60	69·93	30·07	+ 8·6	−22·2	30·8	23·2	42·40	"	"	"	47270	"
60·40	63·05	36·95	+15·3	−21·6	36·9	28·5	31·90	"	"	"	47271	"
JNO. TALBOT, ACTING INSPECTOR.												
66·75	68·01	31·99	+33·1	−21·3	54·4	41·0	25·75	None.	None.	Orange tissues.	48005	Genuine.
68·45	70·01	29·99	− 8·4	−23·0	14·6	11·0	57·45	"	"	"	48007	"
61·70	63·57	36·43	+28·5	−19·0	47·5	35·8	25·90	"	"	"	48017	"
71·95	73·61	26·39	+ 2·9	−23·0	25·9	19·5	52·45	"	"	"	48019	"
66·70	68·02	31·98	+31·1	−23·9	55·0	41·4	25·30	"	"	"	48027	"
78·90	81·23	18·77	+31·7	−23·5	55·2	41·6	37·30	"	"	"	48385	"
77·60	78·79	21·21	+32·4	−21·6	54·0	40·8	36·8	"	"	"	48389	"
67·35	68·84	31·16	+41·8	−20·7	62·5	47·1	20·25	"	"	"	48390	"
61·80	64·65	35·35	+38·9	−19·0	57·9	43·6	18·20	"	"	"	48392	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion).	Solids Insoluble.
									DISTRICT OF LONDON—
1911.									p. c.
April 25	Marmalade.	48394	Jas. Grow, Guelph.	3 jars.	60	Wagstaffe, Hamilton.	.....	Fine Old English Jelly Shred Marmalade.	1·45
									DISTRICT OF WINDSOR—
April 18	Marmalade.	48343	A. M. Smith & Co., London, Ont.	3 jars.	40	Wagstaffe, Hamilton.	.....	.....	2·81
" 18	"	48346	M. Masuret & Co., London, Ont.	3 "	25	T. Upton Co., Hamilton.	.....	Upton's pure *Orange Marmalade.*	1·82
" 18	"	48347	Ed. Adams & Co., London, Ont.	3 "	25	Aylmer Canning Co., Hamilton.	.....	Aylmer Scotch Marmalade *absolutely pure.*	2·45
" 18	"	48348	W. T. Mullens, London, West Ont.	3 "	30	T. Upton Co., Hamilton.	.....	Upton's pure *Orange Marmalade.*	1·78
" 18	"	48350	R. H. Wade, London, W. Ont.	3 "	30	T. Upton Co., Hamilton.	.....	.....	2·09
" 18	"	48352	R. W. James, London, W. Ont.	3 "	45	Crosse & Blackwell, London, Eng.	.....	Pure Orange Marmalade.	1·63
" 19	"	48354	Wm. Cross, Strathroy.	3 "	75	Wagstaffe, Hamilton.	.....	.....	2·62
19	"	48356	J. E. Pedlow, Strathroy.	3 "	30	Aylmer Canning Co., Hamilton.	.....	.....	1·89
19	"	48364	Bon Marché, Brantford.	3 "	60	Jas. Robertson & Sons, Paisley Scot.	.....	.....	2·35
									DISTRICT OF MANITOBA—
April 19	Marmalade.	43553	W. J. Young, Brandon.	3 jars.	75	John Buchanan & Bros., Ltd., Glasgow.	.....	Buchanan's Home made *Marmalade.*	1·12
" 19	"	43554	W. J. Young, Brandon.	3 "	75	Shirriffs, Toronto.	.....	Imperial *Scotch.*	1·66
" 19	"	43555	Smith & Burton, Brandon	3 "	75	Crosse & Blackwell, London, Eng.	.....	Orange Marmalade.	1·26
" 19	"	43556	The Colville Co., Ltd., Brandon.	3 "	45	E. D. Smith, Winona, Ont.	.....	Orange Marmalade.	1·94

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	
JNO. TALBOT, ACTING INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
74·60	76·05	23·95	+26·5	−24·8	51·3	38·7	35·90	None.	None.	Orange tissues.	48394	Genuine.
JNO. TALBOT, INSPECTOR.												
70·75	73·56	26·44	+20·2	−21·6	41·8	31·2	39·55	None.	None.	Orange tissues.	48343	Genuine.
70·05	71·87	28·13	+31·7	−21·3	53·0	39·9	30·15	" .	" .	" .	48346	"
67·15	69·60	30·40	+23·0	−15·8	38·8	29·2	37·95	" .	" .	" .	48347	Contains a trace of glucose.
64·75	66·53	33·47	+25·9	−22·0	47·9	36·1	28·65	" .	" .	" .	48348	Genuine.
70·95	73·04	26·96	+34·0	−23·8	57·8	43·5	27·45	" .	" .	. .	48350	"
75·75	77·38	22·62	+ 1·4	−21·6	23·0	17·3	58·45	" .	" .	" .	48352	"
72·95	75·57	24·43	+30·4	−23·0	53·4	40·2	32·75	" .	" .	Pine apple tissues.	48354	Pine apple, genuine.
68·15	70·04	29·96	+36·8	−18·1	54·9	41·3	26·85	" .	" .	Orange tissue.	48356	Genuine.
70·70	73·05	26·95	+27·4	−21·6	49·0	36·9	33·80	" .	" .	" .	48364	"
A. C. LARIVIERE, INSPECTOR.												
67·75	68·87	31·13	+13·0	−22·7	35·7	26·9	40·85	None.	None.	Orange tissues.	43553	Genuine.
70·80	72·46	27·54	+18·4	−21·8	40·2	30·3	40·50	" .	" .	" .	43554	"
67·25	68·51	31·49	+37·4	−21·0	58·4	44·0	28·20	" .	" .	" .	43555	"
72·20	74·14	25·86	+23·0	−23·8	46·8	35·20	37·20	" .	" .	" .	43556	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).	Solids Insoluble.
									DISTRICT OF MANITOBA—
1911.									p. c.
April 19	Marmalade.	43557	The Codville Co., Ltd., Brandon.	3 jars.	46	Jas. Robertson & Sons, Manchester.	.....	Robertson's *Scotch Marmalade*	1·40
" 20	"	43558	Foley Bros., Larson, Winnipeg.	3 "	44	Wm. P. Hartley, London.	.....	Jelley *Marmalade.*	1·45
" 20	" "	43559	Foley Bros., Larson, Winnipeg.	3 "	43	E. D. Smith, Winona, Ont.	.....	Orange *Marmalade.*	2·99
" 20	"	43560	The Jobin Marrin Co., Ltd., Win'g.	3 "	60	Chivers&Sons, Ltd., Histon, Eng.	.....	Imperial Home made *Marmalade.*	1·45
" 20	"	43561	The Jobin Marrin Co., Ltd., Win'g.	3 "	60	W. J. Brigger, Hamilton.	.....	Pure Orange *Marmalade.*	1·79
" 21	"	43562	H. Slasor, 145 Sherbrooke St.	3 "	75	L. Noel&Sons, Southwark, London.	.....	Ginger Marmalade.	2·76
									DISTRICT OF CALGARY—
May 3	Marmalade.	43812	J. H. Morris & Co., Edmonton.	3 jars.	75	A. Cairns & Sons, Paisley Scot.	.....	.....	1.99
" 3	"	43813	Hallier & Aldridge, Edmonton.	3 "	75	Chivers&Sons, Ltd., Histon Cambridge, Eng.	.....	.....	1·80
" 3	"	43814	Acme Co. Ltd. Edmonton.	3 "	75	Wagstaffe, Ltd Hamilton.	.....	.....	1·95
" 3	"	43815	Hudson Bay Co., Edmonton.	3 "	75	Cross & Blackwell, London, Eng.	.....	.....	1·72
" 3	"	43816	The Capitol Mercantile Co., Edmonton.	3 "	75	"	.....	.....	1·75
" 9	"	43817	L.T. Mewburn & Co. Ltd., Calgary.	3 "	75	Wagstaffe, Ltd Hamilton.	.....	.....	2·05
" 10	"	43818	Georgeson & Co. Limited, Calgary.	3 "	75	E. D. Smith, Winona, O.	.....	.....	0·75
" 10	"	43819	Campbell, Wilson & Horne, Calgary.	3 "	75	Jas Robertson & Sons, Paisley, Scot.	.....	.....	1·10
" 10	"	43820	G.F.& J. Galt, Calgary.	3 "	75	"	.....	.....	1·59
" 10	"	43821	Hudsons Bay Co., Calgary	3 "	60	T. Upton Co., Ltd., Hamilton.	.....	.....	2·75

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.			Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.							
A. C. LARIVIERE, INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
69·00	70·40	29·60	+13·0	−24·2	37·2	28·00	41·00	None.	None.	Orange tissues.	43557	Genuine.
74·50	75·95	24·05	+13·8	−24·2	38·0	28·6	45·90	" .	" .	" .	43558	"
81·75	84·74	15·26	+31·1	−22·8	53·9	40·6	41·15	" .	" .	" .	43559	"
75·25	76·70	23·30	+ 7·2	−22·2	29·4	22·1	54·15	" .	" .	" .	43560	"
66·10	67·89	32·11	+10·1	−20·7	30·8	23·2	42·90	" .	" .	" .	43561	"
74·55	77·31	22·69	+62·4	17·2	45·2	34·0	40·55	" .	" .	Ginger tissues.	43562	Ginger. Contains about 25 p.c. glucose. Technically adulterated.
R. W. FLETCHER—INSPECTOR.												
62·85	64·84	35·16	− 1·5	−17·8	16·3	12·2	50·65	None.	None.	Orange tissues.	42812	Genuine.
66·25	69·05	30·95	+13·5	−22·2	35·7	26·9	40·35	" .	" .	" .	43813	"
67·70	69·65	30·35	+27·0	−23·8	50·8	38·2	29·50	" .	" .	" .	43814	"
66·15	67·87	32·13	+28·5	−20·7	49·2	37·0	30·87	" .	" .	" .	43815	"
62·25	64·00	36·00	+ 9·5	−22·2	31·7	24·1	38·15	" .	" .	" .	43816	"
68·50	70·55	29·45	+21·6	−20·0	41·6	31·4	37·10	" .	" .	"	43817	"
78·70	79·45	20·55	+ 1·4	−26·5	27·9	21·0	57·70	" .	" .	" .	43818	"
69·95	71·05	28·95	+43·2	−20·5	63·7	48·0	21·95	" .	" .	" .	43819	"
71·25	72·84	27·16	+30·2	−23·6	53·8	40·5	30·75	" .	" .	" .	43820	"
69·25	72·00	28·00	+30·2	−23·8	54·0	40·7	31·30	" .	" .	" .	43821	"

BULLETIN No. 233—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)	Solids Insoluble.
									DISTRICT OF NELSON—
1911.									p. c.
May 3	Marmalade.	48401	Kootenay Jam & Co., Nelson, B.C.	3 jars.	25	Vendors ...	.....	.....	2·42
" 3	" .	48402	" .	3 "	25	"	.....	.....	1·73
" 3	" .	48407	A. McDonald Co., Nelson, B.C.	3 "	53	Jas Keiller & Sons, Dundee, Scotland	.....	.....	1·82
" 3	" .	48408	" .	3 "	49	T. Upton Co., Hamilton, O.	.....	.....	2·16
" 3	" .	48409	" .	3 "	52	Cross & Blackwell, Eng.	.....	.....	1·81
									DISTRICT OF VANCOUVER—
April 22	Marmalade.	38145	London Grocery, 210 Granville St., Fairview, Van., B.C.	3 jars.	75	J. Stephens & Sons, Gloucester, Eng.	.....	Finest quality	1·57
" 24	" ..	38146	A. & C. Grocery, 637 Granville St., Van.	3 "	75	Noel & Sons, London, Eng.	.....	Guaranteed Pure.	0·88
" 24	" ..	38147	London Grocery, 632 Granville St., Van.	3 "	75	W.P. Hartley, London, Eng.	.....	Guaranteed Absolutely Pure.	1·54
" 24	" ..	38148	Hudson Bay Co., Granville St., Van.	3 "	30	E. D. Smith, Winona, Ont.	.....	.....	1·10
" 24	" ..	38149	T. F. McDowell, 704 Granville St., Van.	3 "	90	F. Cooper, Osford, Eng.	.....	Warranted Pure.	6·27
" 24	" ..	38150	J. McTaggart & Co., 798 Granville St., Van.	3 "	60	Crosse & Blackwell, London, Eng.	.....	.....	1·66
" 24	" ..	38151	Glasgow Grocery, 716 Robson St., Van.	3 "	45	Chivers & Sons, Cambridge, Eng.	.....	.....	1·41
" 24	" ..	38152	Turners Grocery, 890 Pender St., Van.	3 "	60	J. Keiller & Sons.	.....	.....	1·77

MARMALADES.

Results of Analysis.													
per cent.		Water.	Polarimeter Readings normal weight in 100 cc at 20° C.			Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Soluble.	Total.		Direct.	Invert.	Difference.							
THOS. PARKER—INSPECTOR.												
p. c.	p. c.	p. c.				p. c.	p. c.					
71·00	73·42	26 58	+45·2	−10·0	55·2	41·6	29·40	None.	None.	Orange tissues.	48401	Contains about 5% glucose technically adulterated.
74·00	75·73	24·27	+73·2	+15·8	57·4	43·2	30·80	" .	" .	Lemon tissues.	48402	Contains about 25% glucose technically adulterated.
61·30	63·12	36·88	+ 4·3	−22·2	26·5	19·9	41·40	" .	" .	Orange tissues.	48407	Genuine.
67·25	69·41	30·59	+20·2	−19·9	40·1	30·2	37·05	" .	" .	" .	48408	"
68·25	70·06	29·94	+23·2	−21·2	44·4	33·4	34·85	" .	" .	" .	48409	"
J. F. POWER, INSPECTOR.												
66·10	67·67	32·33	+43·7	−21·6	65·3	48·7	17·40	None.	None.	Orange tissues.	38145	Geniune.
70·12	71·00	29·00	+ 0·4	−21·0	21·4	16·1	54·02	"	"	"	38146	"
72·18	73·72	26·28	+17·6	−19·3	36·9	27·5	44·68	"	"	"	38147	"
70·15	71·25	28·75	+25·0	−23·4	48·4	36·5	33·65	"	"	"	38148	"
57·78	64·05	35·95	+18·2	−20·9	39·1	29·1	38·68	"	"	"	38149	"
70·75	72·41	27·59	+21·0	−22·7	43·7	32·1	28·65	"	"	"	38150	"
69·14	70·55	29·45	+11·7	−21·3	33·0	24·6	44·54	"	"	"	38151	"
72·25	74·02	25·98	+12·2	−22·7	34·9	26·3	45·95	"	"	"	38152	"

Date of Collection.	Nature of Sample.	No of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Solids Insoluble.
									DISTRICT OF VANCOUVER—
1911.									p. c.
April 24	Marmalade.	38153	J. R. Gosling 942 Pender St., Van.	3 jars.	45	J. Robertson & Sons, Paisley, Scot.	.....	.....	2·64
" 24	" ..	38154	H. A. Edgett & Co., 153 HastingsSt., Van.	3 "	75	" "		.....	4·49
									DISTRICT OF VICTORIA—
May 5	Marmalade	47555	Windsor Grocery Co., Victoria, B.C.	2 jars.	50	E. D. Smith, Windsor, Ont.	.....	E. D. Smith's OrangeMarmalade.	1·54
" 5	" ..	47556	"	3 "	75	W. P. Hartley, London, Eng.	.....	Wm. P. Hartley's Jelly Marmalade.	3·49
" 5	" ..	47557	D. H. Ross & Co., Victoria, B.C.	3 "	75	L. Noel&Sons, London, Eng.	.....	AfternoonTea Marmalade.	2·17
" 5	" .	47558	"	3 "	75	Jas. Keiller & Sons., Ltd., Dundee, Scot.	.....	Dundee Mar-Marmalade.	3·47
" 5	" .	47559	West End Grocery Co., Ltd., Victoria, B.C.	3 "	45	Crosse&Blackwell, London, Eng.	.....	C.&B. Orange Marmalade.	4·54
" 5	" .	47560	" ..	3 "	75	The T. Upton, Co., Ltd., Hamilton.	.....	Upton's Pure OrangeMarmalade.	4·83
" 11	" .	47561	Harrison & MacDonald, Victoria, B.C.	2 "	30	Chivers&Sons, Histon,Cambridge, Eng.	.....	Chiver's Pure OrangeMarmalade.	2·56
" 11	" .	47562	" ..	3 "	75	Jas. Robertson & Sons, Paisley, Scot.	.....	Robertson's Golden Shred Marmalade.	0·74
" 12	" .	47563	Copas & Young, Victoria, B.C.	3 "	75	Crosse&Blackwell, London, Eng.	.....	Crosse&Blackwells Lemon Marmalade.	3·37
" 12	"	47564	H. O. Kirkham, Victoria, B.C.	3 "	75	E. D. Smith, Windsor, Ont.	.....	E. D. Smith's Grape Marmalade.	6·61

MARMALADES.

Results of Analysis.												
per cent.			Polarimeter Readings normal weight in 100 cc. at 20° C.									Remarks and Opinion of the Chief Analyst.
Soluble.	Total.	Water.	Direct.	Invert.	Difference.	Residual cane sugar (Clerget).	Soluble matter other than cane sugar.	Preservatives.	Dyes.	Microscopical examination.	No of Sample.	
J. F. POWER, INSPECTOR—*Concluded.*												
p. c.	p. c.	p. c.				p. c.	p. c.					
68·74	71·38	28·62	+21·8	−23·7	45·5	33.9	34·84	None.	None.	Orange tissues.	38153	Genuine.
65·50	69·99	30·01	+19·6	−19·6	39·2	29·5	36·00	"	"	"	38154	"
D. O'SULLIVAN, INSPECTOR.												
74·70	76·24	23·78	+28·0	−23·8	51·8	39·0	35·70	None.	None.	Orange tissues.	47555	Geniune.
68·25	71·74	28·26	+15·8	−21·6	37·4	28·1	40·15	"	"	"	47556	"
63·75	65·92	34·08	− 5·8	−20·7	14·9	11·2	52·55	"	"	"	47557	"
67·50	70·97	29·03	+ 1·4	−20·7	22·1	16·6	50·90	"	"	"	47558	
64·25	69·79	30·21	+1·4	−20·7	22·1	16·6	47·65	"	"	"	47559	
63·25	68·08	31·92	+15·8	−22·0	37·8	29·2	34·05	"	"	"	47560	
61·75	64·31	35·69	− 1·4	−19·6	18·2	13·7	51·05	"	"	"	47561	"
66·75	67·49	32·51	+14·0	−21·6	35·6	26·8	39·95	"	"	"	47562	"
64·55	67·92	32·08	+10·0	−19·3	9·3	7·0	57·55	"	"	"	47563	Lemon Geniune.
56·40	63·01	36·99	−17·3	−21·6	6·3	4·7	51·70	"	"	Grape tissues.	47564	Grape "

APPENDIX J.

BULLETIN No. 234—SWEET SPIRIT OF NITRE.

OTTAWA, February 15, 1912.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to report upon a collection of seventy-four (74) samples of sweet spirit of nitre purchased throughout Canada in October last.

Dunglison (Medical Dictionary, 23rd Edition) describes this drug as 'refrigerant, diuretic, antispasmodic and diaphoretic, and largely employed as an ingredient of fever mixtures.'

The National Dispensatory, 5th Edition, p. 1499, says of the drug: 'In febrile conditions it is much used to promote critical sweating, which it properly does by abating the morbid activity of the heart, and tension of the arteries. As a diuretic it is commonly employed to relieve strangury produced by cantharides; in all painful affections of the urinary apparatus, whether occasioned by calculous or inflammatory disorders, and in the various affections of the kidneys in which congestion of those organs and diminished secretion of urine occurs.'

I quote these authorities in order to emphasize the importance of this drug. It follows naturally that pharmacists who supply the article, are greatly to be blamed when sweet spirit of nitre, as furnished to physicians and to the public, is not of standard quality.

The British Pharmacopœia requires that, when fresh, it should contain 2½ per cent by weight of ethyl nitrite; and that it should never contain less than 1¾ per cent of ethyl nitrite.

The United States Pharmacopœia (eighth revision) requires a minimum of 4 per cent of ethyl nitrite.

Sweet spirit of nitre deteriorates on keeping; and the British Pharmacopœia (1898) instructs that, 'the spirit of nitrous ether be kept in well closed vessels, preferably in a cool dark place, and in small bottles.'

This drug was inspected in 1908, and, the results of analysis are reported in Bulletin No. 167. At that time I took occasion to remark: 'It is well known that this preparation gradually loses its strength on keeping. The fact is expressly stated in the pharmacopœias. It follows that druggists should take proper precautions to enable them to guarantee the article which they dispense, as meeting at least the minimum strength officially required.'

In 1908, 63 per cent of the collection was found to be adulterated, 3 samples containing no nitrous ether whatever. The present collection shows 43 per cent adulterated with 5 samples containing no ethyl nitrite.

It is clear that the retail dealer is to be held responsible for the character of the drug in this case. He may be able to throw back responsibility upon the manufacturer if he holds a warranty under section 33 of the Act; but in this case he would naturally be required to prove that the article had not deteriorated while in his possession.

The following synoptical table shows the results of inspections in 1908 and 1911:—

Date.	Bulletin.	Total Samples.	Genuine.	Adulterated.	Percentage of Adulteration.
1908	167	77	28	49	63
1911	234	74	42	32	43

In view of the unsatisfactory character of this important drug, as found on the Canadian retail markets, it is desirable that another inspection be made at an early date.

One sample (No. 47847) contains 24·55 per cent of ethyl nitrite, and is therefore much too strong for safe administration as sweet spirit of nitre. I have judged this to be adulterated, since sold under the name quoted.

A concentrated solution of ethyl nitrite is mentioned by Squire (Companion to B. P., 18th edition, p. 1140) as sold under the name *Itrosyl.* It is said to keep better than the pharmacopœal spiritus, and is diluted with 95 per cent alcohol to proper strength for immediate preparation of this last.

I beg to recommend the publication of this report as Bulletin No. 234.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.
							DISTRICT OF NOVA SCOTIA—
1911.							
Oct. 25	Spiritus Ætheris Nitrosi.	46731	Nat. Drug & Chem. Co., Halifax, N.S.	3 ozs.	25		Manufacturers
" 26	"	46732	Brown Bros. & Co., Halifax, N.S	3 "	30		"
" 26	"	46733	John R. Rawley, Halifax, N.S.	3 "	30		"
" 26	"	46734	J. McD. Taylor, Halifax, N.S.	3 "	40		
" 26	"	46740	J. D. Walsh, Halifax, N.S.	3 "	30	Unknown	
							DISTRICT OF PRINCE EDWARD ISLAND—
Oct. 14	Spiritus Ætheris Nitrosi.	46101	George E. Hughes, Charlottetown, P.E.I.	3 ozs.	30		
" 16	"	46102	Johnson & Johnson, Charlottetown, P.E.I.	3 "	30		
" 20	"	46103	Dr. F. W. Jardine, Kensington, P.E.I.	3 "	30		
" 20	"	46104	" "	3 "	30		
							DISTRICT OF NEW BRUNSWICK—
Oct. 12	Spiritus Ætheris Nitrosi.	45535	Nat. Drug & Chem. Co., St. John, N.B.	3 ozs.	30		
" 20	"	45536	E. Clinton Brown, St. John, N.B.	3 "	30		
Nov. 3	"	45537	Johnston & Johnston, St. Stephen, N.B.	3 "	15		
" 7	"	45538	R. T. Mack, Fredericton, N.B.	3 "	30	Vendor	
" 15	"	45539	Fairweather Bros., Moncton, N.B.	3 "	30		
							DISTRICT OF QUEBEC—
Oct. 11	Spiritus Ætheris Nitrosi.	36993	J. B. Giroux, 385 Rue St. Joseph, Quebec.	3 ozs.	35		
" 11	"	36994	Alphonse Martineau, 734 Rue St. Valier, Quebec.	3 "	25		
" 11	"	36995	Joseph Masson, 808 Rue St. Valier, Quebec.	3 "	25		
" 11	"	36996	L. E. Martel, 79 Rue St. Joseph, Quebec.	3 "	30		
" 11	"	36997	Estate G. P. Plamondon, 122 Rue St. Joseph, Quebec.	3 "	30		

SPIRITUS ÆTHERIS NITROSI.

Inspector's Report (Is not an expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and opinion of the Chief Analyst.
	Sp. gr. at 15°C.	Ratio of vol. of gas to vol. of liquid.	Ethyl Nitrite per cent by weight.		
R. J. WAUGH—INSPECTOR.					
.....	0·8590	5·5	2·03	46731	Genuine.
.....	0·8443	5·6	2·08	46732	"
.....	0·8426	2·6	0·97	46733	Adulterated.
.....	0·8428	4·7	1·75	46734	Genuine.
.....	0·8438	3·0	1·12	46740	Adulterated.
WM. A. WEEKS—INSPECTOR.					
	p. c.	p. c.	p. c.		
.....	0·8598	5·1	1·86	46101	Genuine.
Tincture obtained from Lymans, Ltd. & alcohol added by vendor to make the spirit.	0·8343	5·7	2·16	46102	"
.....	0·8580	5·5	2·02	46103	"
.....	0·8441	7·8	2·94	46104	"
J. C. FERGUSON—INSPECTOR.					
.....	0·8471	7·5	2·79	45535	Genuine.
.....	0·8513	4·9	1·85	45536	"
.....	0·8269	10·9	4·23	45537	"
.....	0·8338	11·0	4·22	45538	"
.....	0·8449	2·6	0·99	45539	Adulterated.
F. X. W. E. BELAND—INSPECTOR.					
.....	0·9509	0·0	0·0	36993	Adulterated. Contains no ethyl nitrite.
.....	0·8552	3·5	1·25	36994	Adulterated.
.....	0·8326	0·6	0·22	36995	"
.....	0·8251	0·9	0·34	36996	"
.....	0·8560	1·5	0·54	36997	"

Date of Collection.	Nature of sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cts.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
			DISTRICT OF ST. HYACINTHE—				
1911.							
Oct. 26	Spiritus Ætheris Nitrosi.	1165	Dr. C. Verdon, Granby....	3 oz..	25		
Nov. 6	"	1166	F. F. Ansell, Sherbrooke..	3 " .	30		
" 8	"	1167	Dr. C. A. Codere, Megantic.	3 " .	30		
" 9	"	1168	Pharmacie Drolet.....	3 "	30		
" 10	"	1169	J. F. Flink, Rock Island..	3 " .	24		Unknown
			DISTRICT OF MONTREAL—				
Oct. 16	Spiritus Ætheris Nitrosi.	40916	S. Mousan 661 St. Lawrence B, Montreal.	3 oz..	45		
" 16	"	40917	Myers Freeman, 43 St. Catherine St. west. Montreal.	3 " .	30		
" 16	"	40918	B. Fox, St. Lawrence Boulevard, Montreal.	3 " .	30		
" 16	"	40919	A. Lebeau, 465 St. James St., Montreal.	3 " .	45		
" 16	"	40920	Standard Pharmacy, 549 St. James St., Montreal	3 " .	25		
			DISTRICT OF OTTAWA—				
Oct. 10	Spiritus Ætheris Nitrosi.	49006	W. J. Hughes, Carleton Place.	3 oz..	30	Vendor	
" 14	"	49007	P. J. Nolan, Ottawa.	3 " .	30	"	
" 16	"	49008	J. F. Patterson, Almonte.	3 "	30	Unknown	Unknown
" 24	"	49009	R M. Arbuthnot, Ottawa.	3 " .	30	Vendor	
" 26	"	49010	G. F. Brethour, Ottawa..	3 " .	30	"	
			DISTRICT OF KINGSTON—				
Nov. 2	Spiritus Ætheris Nitrosi.	48549	C. S. Prouse, Kingston...	3 oz..	30		
" 2	"	48550	Geo. Mahood, "	3 " .	25		
" 2	"	48551	W. W. Gibson, "	3 " .	25	Vendor	
" 3	"	48552	L. T. Best, "	3 "	30		
" 3	"	48553	J. B. McLeod, "	3 " .	40		

SPIRITUS ÆTHERIS NITROSI.

Inspector's Report (Is not an expression of opinion.)	Results of Analysis. Sp. gr. at 15°C.	Ratio of vol. of gas to vol. of liquid	Ethyl Nitrite per cent by weight.	No. of Sample.	Remarks and Opinion of the Chief Analyst.	
J. C. ROULEAU, INSPECTOR.						
.....	0·9101	0·0	0·0	1165	Adulterated.	Contains no ethyl nitrite.
.....	0·8608	1·0	0·35	1166	Adulterated.	
Prepared according to U.S. P.	0·8332	7·0	2·54	1167	Genuine.	
.....	0·8618	4·1	1·43	1168	Adulterated.	
.....	0·8276	9·6	3·53	1169	Genuine.	
J. J. COSTIGAN, INSPECTOR.						
	p. c.	p. c.	p. c.			
.....	0·8531	2·5	0·93	40916	Adulterated.	
.....	0·8262	7·7	2·92	40917	Genuine.	
.....	0·8433	2·3	0·85	40918	Adulterated.	
.....	0·8564	2·1	0·77	40919	"	
.....	0·8686	2·5	0·91	40920	"	
J. A. RICKEY, INSPECTOR.						
Made from concentrated spirit and alcohol.	0·8340	1·5	0·55	49006	Adulterated.	
" " ..	0·9492	0·0	0·0	49007	"	Contains no ethyl nitrite.
.....	0·8312	4·3	1·59	49008	Adulterated.	
Made from concentrated spirit and alcohol.	0·8310	4·5	1·66	49009	"	Slightly below standard limit.
" " ..	0·8391	0·0	0·0	49010	"	Contains no ethyl nitrite.
JAS. HOGAN, INSPECTOR.						
.....	0·8422	4·3	1·58	48549	Adulterated.	
.....	0·8541	23·8	8·60	48550	Genuine; but too strong.	
.....	0·8344	10·4	3·83	48551	"	
.....	0·8433	3·7	1·35	48552	Adulterated.	
.....	0·8291	10·5	3·90	48553	Genuine.	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
							DISTRICT OF TORONTO
1911.							
Oct. 16	Spiritus Æthe-ris Nitrosi.	49305	Blaicher & Reche, Main st., Hamilton.	3 oz.	25	.....	.....
" 16	"	49306	T. F. O'Riley, 498 Queen st. East, Toronto.	3 "	25	.....	.....
" 23	"	49307	T. F. & T. J. Brown, Orangeville.	3 "	25	.....	.....
" 24	"	49308	Langs & Gilchrist, Owen Sound.	3 "	25	.....	.....
Nov. 3	"	49309	Geo. Callard, Stouffville.	3 "	25	.....	.....
							DISTRICT OF LONDON—
Oct. 17	Spiritus Æthe-ris Nitrosi.	47813	W. M. Mutton, Ridge town.	3 oz.	30	.....	.....
" 17	"	47820	Bawder Drug Store, Ridge-town.	3 "	24	.....	.....
" 18	"	47837	W. H. Willson, Leaming-ton.	3 "	40	.....	.....
" 19	"	47847	T. J. Stillman, Essex	3 "	30	.....	.....
" 20	"	47854	A. J. McCall & Co., Chat-ham.	3 "	30	.....	.....
							DISTRICT OF MANITOBA—
Nov. 6	Spiritus Æthe-ris Nitrosi.	47453	St. John's Pharmacy, Winnipeg.	3 oz.	35	Vendors	.....
" 6	"	47468	Lincoln Park Drug Co., Winnipeg.	3 "	45	.....	.....
" 7	"	47470	Norwood Drug Co., Nor-wood Grove.	3 "	25	Unknown	Unknown
" 7	"	47471	W. G. Lang, Norwood Grove.	3 "	30	"	.....
" 9	"	47472	Elmwood Drug Store, (Elmwood), Winnipeg.	3 "	30	"	Unknown
							DISTRICT OF CALGARY—
Nov. 8	Spiritus Æthe-ris Nitrosi.	44015	E. M. Cawker, Medicine Hat.	3 oz.	50	.....	.....
" 9	"	44016	C. S. Pingle, Medicine Hat.	3 "	50	Vendor	.....
" 9	"	44017	B. F. Souch, Medicine Hat.	3 "	50	.....	.....
" 14	"	44018	Nat. Drug & Chem. Co., Calgary.	3 "	50	.....	.....
" 14	"	44019	C. A. Wallace, Calgary	3 "	50	.....	.....

SPIRITUS ÆTHERIS NITROSI—*Continued.*

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 15°C.	Ratio of vol. of gas to vol. of liquid.	Ethyl Nitrite per cent by weight.		
H. J. DAGER, INSPECTOR.					
	p. c.	p. c.	p. c.		
.....	0·8417	3·6	1·32	49305	Adulterated.
.....	0·8288	6·2	2·35	49306	Genuine.
.....	0·8260	7·3	2·76	49307	"
.....	0·8339	6·1	2·30	49308	"
.....	0·8520	4·4	1·60	49309	Adulterated.
JNO. TALBOT, INSPECTOR.					
.....	0·8285	17·2	6·47	47813	Genuine; too strong.
.....	0·8373	0·0	0·00	47820	Adulterated. Contains no ethyl nitrlte.
.....	0·8250	8.4	3 16	47837	Genuine.
.....	·8413	66·4	24·55	47847	Genuine; but too concentrated. Adulterated.
.....	0·8258	8·0	3·03	47854	Genuine.
A. C. LARIVIERE, INSPECTOR.					
.....	0·8345	9·1	3·45	47453	Genuine.
.....	0·8265	7·5	2·85	47465	"
.....	0·8864	9·8	3·48	47470	"
.....	0·8858	6·9	2·44	47471	"
.....	0·8273	7·0	2·66	47472	"
R. W. FLETCHER, INSPECTOR.					
.....	0·8492	5·7	2·14	44015	Genuine.
.....	0·8282	10·8	4·17	44016	"
.....	0·8512	2·2	0·79	44017	Adulterated.
.....	0·8466	4·5	1·69	44018	Adulterated; slightly below standard limit.
.....	0·8654	.....	trace.	44019	Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.
							DISTRICT OF NELSON—
1911.							
Oct. 19	Spiritus Ætheris Nitrosi.	48445	McLean Drug & B. Co., Fernie, B.C.	3 ozs	45		
" 19	"	48446	N. E. Suddaby, Fernie, B.C.	3 "	30		
" 27	"	48451	Goodeve Bros., Rossland, B.C.	3 "	45		
" 28	"	48484	Canada Drug & B. Co., Nelson, B.C.	3 "	25		
" 28	"	48486	Poole Drug Co., Nelson, B.C.	3 "	40		
							DISTRICT OF VANCOUVER—
Oct. 17	Spiritus Ætheris Nitrosi.	38205	W. E. Almas, Pender St., Vancouver.	3 ozs	45		
" 17	"	38206	Manhattan Pharmacy, Robson St., Vancouver.	3 "	75		
" 17	"	38207	Le Patourel & McRae, Granville St., Vancouver	3 "	50		
" 17	"	38208	L. G. Henderson, Granville St., Vancouver.	3 "	50		
" 18	"	35209	Ferguson's Drug Store, Granville St., Vancouver	3 "	75		
							DISTRICT OF VICTORIA—
Nov. 20	Spiritus Ætheris Nitrosi.	47671	W. Jackson & Co., Victoria.	3 ozs	35		
" 20	"	47672	Hall & Co., Victoria.....	3 "	35		
" 22	"	47673	W. S. Terry, Victoria....	3 "	35		
" 22	"	47674	Ivil's Pharmacy, Victoria	3 "	35		
" 22	"	47675	F. J. Williams, Victoria..	3 "	35		

SPIRITUS ÆTHERIS NITROSI.

Inspector's Report (Is not an expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and opinion of the Chief Analyst.
	Sp. gr. at 15°C.	Ratio of vol. of gas to vol. of liquid.	Ethyl Nitrite per cent by weight.		
THOS. PARKER, INSPECTOR.					
	p.c.	p.c.	p.c.		
.....	0·8266	5·2	2·02	48445	Genuine.
.....	0·8568	3·4	1·24	48446	Adulterated.
.....	0·9047	5·6	1·91	48451	Genuine.
.....	0·8601	9·4	3·37	48484	"
.....	0·8237	1·5	0·55	48486	Adulterated
J. F. POWER, INSPECTOR.					
Made from compound..	0·8295	8·3	3·10	38205	Genuine.
" " ..	0·8273	7·5	2·83	38206	"
.....	0·8417	3·9	1·51	38207	Adulterated.
.....	0·8316	8·8	3·30	38208	Genuine.
.....	0·8399	6·5	2·42	38209	"
D. O'SULLIVAN, INSPECTOR.					
.....	0·8723	2·3	0·86	47671	Adulterated.
.....	0·8441	4·8	1·80	47672	Genuine.
.....	0·8266	9·4	3·63	47673	"
.....	0·8273	6·0	2·33	47674	"
.....	0·8284	8·9	3·43	47675	"

APPENDIX K.

BULLETIN No. 235.—VINEGARS.

OTTAWA, February 17, 1912.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to report upon 151 samples of vinegars, collected throughout the Dominion in October of last year. This collection may be regarded as supplementary to that of October, 1910, reported in Bulletin No. 223; the greater part of which was destroyed by the fire of January, 1911.

These collections were made with the special object of ascertaining whether or not certain proposed definitions of and standards for vinegar could be enforced to the advantage of the consumer. Our inspectors were particularly instructed to note the specific name under which vinegar is sold. So far as this report goes, it shows that so-called Wine or White Wine vinegars are most in demand, 61 samples, or 40 per cent of the collection being sold as Wine vinegar; 46 samples constituting 30 per cent of the collection are sold as malt vinegars, and 23 samples (16 per cent) as Cider vinegar.

Twenty-one (21) samples are sold simply as vinegar, without any specific claim to origin or character.

These three classes of vinegars have come to be so generally recognized, that it appears to be necessary, in the consumers' interest, to define them accurately and distinctively, if this be possible.

Vinegar is at present defined in the fifth schedule to the Adulteration Act as follows:—'A more or less coloured liquid consisting essentially of impure, dilute acetic acid, obtained by the oxidation of wine, beer, cider or other alcoholic liquid.

This conception of vinegar has evident regard to the article as a fermentation product from wine (*Vin-Aigre*), or other alcohol containing liquid. The word *impure* is not intended to convey any idea of an objectionable character, but is merely a way of stating that the acetic acid is accompanied by other matters, legitimately present, produced co-ordinately with the acetic acid by the methods described. As a matter of fact, it is to these associated substances, or congeners, that the distinctive flavour of vinegar is due. There has grown up, in recent years, a demand for the recognition of a diluted acetic acid, artifically flavoured, as vinegar. This modern innovation is clearly a result of the cheap production of acetic acid by a method which does not involve fermentation with *mycoderma aceti*. Acetic acid is now made commercially as a product of the destructive distillation of wood. Since acetic acid is the most important component of vinegar, why may not refined acetic acid, no matter what its origin, be employed in vinegar manufacture? If rectified spirits may be used in the manufacture of whiskey, there would seem to be no valid reason for

condemning refined acetic acid as a basis for vinegar. Just as the German, or Quick vinegar process was, in 1823, looked upon as an improvement upon the older methods of spontaneous souring, so may not the obtaining of acetic acid from other sources than alcohol be regarded as a further improvement in vinegar production?

In the latest (Eleventh) edition of the Encyclopœdia Britannica, vinegar is defined as 'A dilute solution of impure acetic acid, prepared by the acetous fermentation of alcohol, or of such substances, which yield alcohol when suitably decomposed (ordinary vinegar), or obtained from the products resulting on the dry distillation of wood (wood vinegar).' The following explanation is given: 'Ordinary or table vinegars, which contain in addition to acetic acid, small quantities of alcohol, higher acids such as tartaric and succinic, various esters, albuminous substances, &c., are produced solely by acetous fermentation, wood vinegar being only employed in certain arts.' 'Wood vinegar is not used in cooking, as it lacks those substances which render ordinary vinegar palatable.'

So far as ordinary or table vinegars are concerned, this definition is in harmony with the present Canadian standards for vinegar.

If, however, the only difference between pure dilute acetic acid, and true vinegar, is the absence of flavouring matter in the former, would it not be possible to make a satisfactory artificial vinegar, fulfilling every requisite of healthfulness, by adding to, pure dilute acetic acid, the necessary flavours?

That the question asked is of importance appears from the facts that (1) the Adulteration Act is not intended to handicap the manufacture and sale of cheap foods so long as these are wholesome; (2) it is well known that much of the vinegar on the market is actually made in whole or part, from acetic acid, without acknowledgment of the fact; (3) it is difficult, or even impossible, by chemical analysis to detect small additions of acetic acid to fermentation vinegars. Hence the necessity of establishing definite limits of variation for the different species of vinegar found in the market.

Cider Vinegar.

Standards have been fixed for this variety of vinegar by the Department of Agriculture at Washington, as follows:—

a. It is levorotatory.
b. It contains not less than 4 grams acetic acid in 100cc.
c. It contains not less than 1·6 grams apple solids in 100cc.
d. Reducing sugars do not exceed 50 per cent of the weight of these solids.
e. Apple ash not less than 0·25 gram per 100cc.
f. Phosphoric acid (P_2O_5) not less than 10 mgr. in water soluble ash from 100cc. vinegar.
g. Alkalinity of soluble ash from 100cc., not less than 30cc. deci-normal.

Although I am not aware that the datum has been formally established, it would appear from the findings in U.S.A. *vs.* One hundred barrels vinegar (Notice of Judgment No. 1159) that Cider vinegar should have a glycerin content between 0·24 and 0·46 per 100cc.

Qualitative tests, such as the character of the residual solids and the ash, with regard to potash content, colour, viscidity, odour, solubility, &c., are more or less characteristic. Cider vinegars also give a decided precipitate with lead acetate.

Twenty-three (23) samples of the present collection are sold as Cider vinegars. The results of analysis, interpreted by the above quoted standards, give as follows:—

	Samples.
Genuine Cider vinegar	8
Artificial Cider vinegar	10
Doubtful Cider vinegar	4
Fermenting cider	1
	23

It is my belief that all genuine Cider vinegars will be found to respond to the above requirements. It is quite possible to prepare surrogates which might meet these standards; but in the present state of our knowledge, they represent the most effective check upon fraudulent imitations.

Malt Vinegar.

This is defined, for the United States of America, as follows:—

Is the product made by the alcoholic and subsequent acetous fermentation, without distillation of an infusion of barley malt, or cereals whose starch has been converted by malt; is dextro-rotatory, and contains, in 100cc., not less than 4 grammes of acetic acid; not less than 2 grammes of solids, and not less than 0·2 gramme ash. The water soluble ash from 100cc. contains not less than 9 milligrammes of phosphoric acid (P_2O_5), and requires not less than 4cc. of deci-normal acid to neutralize its alkalinity.

Very few analyses of malt vinegars, of undoubted genuineness, are on record. Hehner quotes the following (1):—

Seven Samples from Malt Only.

——	Acidity.	Solids.	Ash.	P_2O_5.	Alkalinity of ash cc N/10.
Maximum	6·48	4·23	0·47	130	8·4
Minimum	2·88	1·68	0·22	·67	1·6
Mean	4·23	2·70	0·34	105	2·2

Allen (2) for three samples, from mixed malted and unmalted barley:—

——	Sp. grav.	Acetic acid.	Solids.	Ash.	P_2O_5.	Alk. N/10.	Nitrogen.	Albuminoids.
No. 1	1·0170	6·39	2·67	0·34	77	9·7	·099	·624
" 2	1·0228	5·26	3·96	0·40	93	12·5	·095	·598
" 3	1·0160	4·86	2·31	0·47	57	.....	·099	·625

These results may be taken to justify in the main, the standards adopted by the U.S.A.; while establishing the facts that (1) Solids may occasionally fall slightly below 2 per cent.; (2) The alkalinity of the soluble ash from 100cc., may occasionally be less than 4cc. N/10.

I have not a sufficient number of analyses of accredited Malt vinegars at command to enable me to feel justified in accepting the above standards, or advising their legal

(1) The Analyst, XVI, 82; XVIII, 240.
(2) The Analyst, XLX, 15.

adoption in Canada. But nothing known to me regarding Malt vinegars, leads me to think these standards unreasonable. I propose to interpret by them the results of analysis of 46 samples, sold as Malt vinegar, in October last, and reported herein.

In addition to the requirements of the above standards, the annexed tables include the amounts of soluble ash; and of total phosphoric acid; as well as the qualitative determination of chlorides and phosphates, and of the precipitate obtained with lead acetate. These data are believed to possess value in judging the character of the article, inasmuch as Spirit vinegars give but slight precipitates with lead, and only traces of chlorides or sulphates.

By application of the quoted standards, I am able to classify 46 samples sold as Malt vinegar, as follows:—

	Samples.
Genuine	24
Doubtful	5
Imitation	17
Total	46

Twenty-four samples are judged to be genuine from the fact that they answer to all but one or two of the constants suggested as applicable to Malt vinegar. It is important to ascertain where and to what extent, deviation from these constants has been found in samples which, upon the whole results of analysis, are judged to be genuine. In the following synopsis of the 24 samples, I have indicated the constants which fail to be met by each sample:—

No. 46724	Solids		Sol	P_2O_5	
" 46725					
" 46729		Alkalinity	Sol	P_2O_5	
" 46094		"	"	"	
" 46099					
" 1395					Lead Precipitate.
" 49026					
" 49029		Alkalinity	Sol	P_2O_5	
" 47833		"	"	"	
" 44910		"	"	"	
" 38216		"	"	"	
" 38217					
" 38218	Solids				
" 38221		Alkalinity	Sol	P_2O_5	
" 38223	Solids				
" 38224					
" 47631	Solids				
" 47632		Alkalinity	Sol	P_2O_5	
" 47634			"	"	Lead Precipitate.
" 47635					
" 47637					
" 47639	Solids				
" 47640		"	"	P_2O_5	
" 49023	Solids	"			

Of 24 samples of Malt Vinegar believed to be genuine,
Solids are less than 2 per cent in 6 samples.
Alkalinity of sol. ash, less than 4cc. N/10 in 10 samples.
Soluble P_2O_5, less than 9 mgr. in 11 samples.
Lead precipitate not copious in 2 samples.

Only 7 samples meet every requirement of the proposed standards.

These results indicate that the standards for soluble phosphoric acid and for alkalinity of soluble ash are probably too high; that solids may be slightly less than 2 per cent in Malt vinegar, and that a copious lead precipitate may not invariably be obtained.

The solids actually present in 6 samples containing less than 2 per cent are 1·720; 1·712; 1·748; 1·810; 1·830; 1·530—mean value, 1·725 per cent.

The alkalinity of soluble ash in 10 samples showing less than 4cc. N/10 per 100cc. is as follows:—

0·8, 1·4, 1·0, 1·2, 1·4, 2·4, 1·2, 1·0, 1·2, 2·8, which would imply that the alkalinity number is of much less importance in defining Malt vinegar than has been supposed. In several cases this number has greatly exceeded 4cc. N/10, as in No. 46725 (10·4); 46099 (9·6); 1395 (9·8); 38218 (10·0); 47639 (10·0).

Wine Vinegars.

As the name vinegar implies, all vinegars were originally Wine vinegars. Vinegar produced by the souring of wine is still the most important variety of this article in wine growing countries. It may be made from either red or white wine, and is known as Red Wine vinegar or White Wine vinegar respectively. The latter variety is usually preferred.

The subjoined results of analysis for genuine Wine vinegars are from the following sources:

I. König-Zusammensetung, Band I., S. 1447. Mean results for a large number of samples.

II. Twenty-two samples, analysed by the Municipal Laboratory in Paris, quoted by Leach, Food Inspection and Analysis, p. 762.

III. Red Wine vinegar (Weigmann), Leach, loc. cit.

	I.	II.	III.
Specific Gravity	1·0228	1·0175	1·0143
Acetic Acid per cent	5·07	7·38	7·79
Extract (Solids)	4·03	1·93	0·863
Alcohol	1·80	.....	1·19
Bitartrate of Potash	0·184	0·170	0·057
Sugars	2·09	0·220	
Glycerin	0·507	.....	0·141
Ash	0·391	0·320	0·118
Phosphoric Acid	0·053	.....	0·012

The Second International Congress for the Repression of Frauds, held in Paris, October, 1909, defined Wine vinegar as exclusively the product of the acetous fermentation of wine.

It is quite evident that Wine vinegar should not be confounded with Spirit vinegar. This last is the product of the acetous fermentation of diluted alcohol; and should be distinctively named. It appears, from the present report, that most of the so-called White Wine vinegar sold in Canada is really Spirit vinegar, being made by the acetous fermentation of distilled spirit. This is evident from the low solids and ash, as well as from other constants. The results of examination of 61 samples sold as Wine vinegar may be summarized thus:—

	Samples.
Genuine Wine vinegar	1
Spirit vinegar	52
Acetic Acid vinegars	6
Samples lost	2
	61

As to what should be regarded as constants for Spirit vinegar, we have not sufficiently numerous analyses of the certified article to make a definite ruling. Twelve samples analysed in the Municipal Laboratory of Paris gave as follows:—

——	Sp. Gravity.	Solids.	Ash.	Acidity.
Maximum	1·0131	0·16	·09	7·98
Minimum	1·0082	0·07	·04	4·98
Mean	1·0100	0·35	trace.	6·34

Rothenbach's test for fermented vinegars (Zeitschrift für Angewandte Chemie, 1906, 1610) has been applied to these vinegars, with the results given under Iodine test.

Twenty-one (21) samples are sold without specific claim, and simply as vinegar. Of this number 18 are found to be spirit vinegars, 3 of them being apparently fortified by addition of acetic acid. Two are imitation Malt vinegars, and one is evidently made from acetic acid only.

In the absence of standards for the article, I am unable to designate any of the 151 samples herein reported, as adulterated, except in so far as they fail to meet the requirements of the fifth schedule to the Adulteration Act. Even here it is open to question whether a fermented vinegar to which acetic acid has been added, would be held adulterated by the courts. It might still be regarded as essentially a fermentation product. The report is intended to show what vinegar is, as sold in Canada; and to furnish material for the establishing of standards for the article. A scheme of standards was outlined in Bulletin 223 (April, 1911), and it is hoped that the information herein given may enable your Advisory Board to reach conclusions in this matter.

I beg to recommend publication of this report as Bulletin 235.

I have the houour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).
								DISTRICT OF NOVA SCOTIA—
1911								
Oct. 25	Vinegar...	46721	National Drug & Chem. Co., Halifax, N.S	1½ bt..	15	Vendors	....	Sovereign Brand White wine.
" 27	" .	46726	Wm. Moore, Halifax, N.S.	1½ " .	10	J. E. Gass, Halifax, N.S.	Mfr..... . .	White wine ....
Nov. 17	" .	46730	Coleman & Eisener, Dartmouth, N.S.	1½ " .	8	M. W. Greaves & Co., Bridgetown.	Nickerson & Hart, Halifax, N.S.	White wine ....
								DISTRICT OF PRINCE EDWARD ISLAND—
Oct. 16	Vinegar...	46091	Jas. P. Duffy, Charlottetown, P.E.I.	1 qt..	10	C. La Riviern, Bordeaux.	.....	White wine .. .
" 16	"	46092	John McKenna, Charlottetown, P.E.I.	1 " .	15	Hudon Hebert et Cie, Montreal.	.....	" . .
" 17	" .	46095	E. Toombs, Charlottetown, P.E.I.	1 "	15	.....	N. Rathenbury Charlottetown, P.E.I.	" ....
" 21	" .	46097	R. T. Holman, Ltd., Summerside, P.E.I.	1 " .	15	H. J. Heinz & Co., Pittsburg, Pa.	.....	" ...
" 21	" .	46098	Brace McKay & Co., Summerside, P.E.I.	1 "	20	E. M. Bollman, Bordeaux, France.	.....	" ....
" 26	" .	46100	E. J. Holman & Co., Charlottetown, P.E.I.	1 " .	10	McCready & Son, Ltd., St John, N.B.	....	" ...
								DISTRICT OF NEW BRUNSWICK—
Oct. 14	Vinegar...	45525	James McCauley, St. John.	1 qt..	10	....	Northrop & Co. St. John, N.B	White wine ....
" 17	" .	45527	W. A. Fairweather Co., Ltd., St. John.	1 " .	10	Vendors	.....	" ...
Nov. 3	" .	45530	F. E. Rose, St. Stephen, N.B.	1 " .	10	Thos. McCready & Son, St. John	....	"
								DISTRICT OF QUEBEC—
Oct. 12	Vinegar...	36984	Cantin & Frere, 271 Rue St. Joseph, Quebec.	1 qt..	20	Heinz, Pittsburg, U.S.	Mfrs	Wine..... ....
" 13	" .	36985	G. Gingras, 268 Rue du Roi, Quebec.	1 " .	25	" .	J. B. Renaud & Cie.	. ...
" 13	" .	36986	" .	1 " .	15	Gagnon & Garent	Mfrs.....	" ....
" 13	" .	36989	W. Cantin, 133 rue du Pont Que	" .	15	St. Lawrence Vinegar.	J. E. Letourneau.	" .....
" 19	" .	36990	A. Pichette, 176 Rue D'Orchester, Quebec.	1 " .	20	" .	J. B. Renaud & Cie.	" .. ..

VINEGAR (WHITE WINE).

Results of Analysis.									
Gms. per 100cc.						Formic Acid			
Acidity as acetic.	Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented vinegar.	Mgmes. per 100cc.	Pts. per 1000 of total acid	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.									
5·16	0·188	0·043	Heavy trace.	None.....	Clear.....	28·4	5·51	46721	Made from acetic acid, at least in part. Doubtful.
4·65	0·011	0·002	Slight trace.	"	"	69·7	14·98	46726	Made from acetic acid. Adulterated.
4·32	0·097	0·015	"	Slight trace.	Ppt.	.....	.....	46730	Spirit vinegar.
WM. A. WEEKS, INSPECTOR.									
3·66	0·058	0·011	Slight trace.	Slight trace.	Ppt	.....	.....	46091	Spirit vinegar.
5·34	0·330	0·080	Large amount.	Medium..	" . . .	....	. . .	46092	"
3·66	0·146	0·020	Slight trace.	None....	"	. ....	. ...	46095	"
5·40	0·205	0·032	"	Trace.....	Slight ppt.	Trace.....	. ...	46097	"
6·96	0·163	0·015	None.....	None. ...	"	18·1	2·60	46098	Made from, or fortified by acetic acid. Doubtful.
4·71	0·104	0·015	Trace.....	Slight trace.	"	....	..	46100	Spirit vinegar.
J. C. FERGUSON, INSPECTOR.									
3·48	0·070	0·014	Trace.....	None.....	Slight ppt.	None....	..	45525	Spirit vinegar.
7·50	0·178	0·017	"	"	Heavy ppt.	Trace.....	. .	45527	"
5·19	0·126	0·022	Medium..	"	Medium ppt.	0·6	0·13	45530	"
F. X. W. E. BELAND, INSPECTOR.									
5·28	0·155	0·032	Trace.....	None.....	Ppt.	....	.....	36984	Spirit vinegar.
5·34	0·156	0·032	" .. .	Trace....	"	... .	.....	36985	"
4·62	0·057	0·018	None.. ..	None	Clear.....	37·8	8·18	36986	Made from acetic acid Adulterated.
5·97	0·391	0·032	"	Trace.....	.....	1·0	0·16	36989	Spirit vinegar.
7·14	0·178	0·013	Slight trace.	None.....	Ppt	.. ..	.....	36990	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).
								DISTRICT OF QUEBEC—
1911.								
Oct. 19	Vinegar. .	36991	A. Pichette, 176 Rue Dorchester, Quebec.	1 qt...	15	Wilson, Lytle & Badgerow, Toronto.	Gagnon & Garent, Mfrs.	Wine.....
" 19	" ..	36992	Louis Jobin, 156 Rue Dorchester, Quebec.	1 " ...	16	St. Lawrence Vinegar.	.....	" .....
								DISTRICT OF ST. HYACINTHE—
" 25	Vinegar. .	1390	L. Ed. Choquette, Farnham.	1 qt...	15	Wilson, Lytle & Badgerow, Toronto.	.....	White Wine...
" 26	" ..	1392	Monty frère, Granby.	1 " ..	10	Heinz, Leamington, Ont.	.....	" ....
" 26	" ..	1393	A. C. Gilmore, Waterloo.	1 " ..	5	.....	Hudon & Orsali, Montreal.	" ....
" 21	"	1398	E. Marchand, Nicolet.	1 " .	5	.....	L. Chaput fils & Co., Montreal.	White Wine. Proof.
								DISTRICT OF MONTREAL—
" 17	Vinegar. .	40906	Branet & Brayeur, 1135 St. Lawrence Bldv., Montreal.	1 qt...	15	.....	.....	White Wine....
" 17	" ..	40910	O. Sansregret, 50 Duluth Ave.	1 " ..	13	Lion Vinegar Co., Ltd.	.....	" ....
								DISTRICT OF OTTAWA—
Oct. 10	Vinegar..	49021	Bowland & McRostie, Carleton Place.	1 qt..	10	Dom. Vinegar Works, Hamilton.	.....	XXX White Wine.
" 12	" ..	49022	J. K. Whitelaw, Arnprior.	1 " .	10	Wilson Lytle & Badgerow, Toronto.	.....	XX " ..
" 20	" ..	49025	J. T. Kearns, Chesterville.	1 " .	10	" ..	.....	White wine 83 grs.

VINEGAR (WHITE WINE).

Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
Gms. per 100cc.						Formic Acid.			
Acidity as acetic.	Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented vinegar.	Mgms. per 100 cc.	Pts. per 1000 of total acid.		
F. X. W. E. BELAND, INSPECTOR.									
5·37	0·518	0·038	Trace ...	None.....	.....	Trace	.....	36991	Spirit vinegar.
5·13	0·412	0·032	"	"	.....	0·9	0·17	36992	"
J. C. ROULEAU, INSPECTOR.									
4·14	0·093	0·016	Trace ...	Slight trace.	Ppt	.....	.....	1390	Spirit vinegar.
5·28	0·215	0·039	Medium..	"	"	.....	.....	1392	"
7·29	0·128	0·024	Slight trace.	"	"	.....	.....	1393	"
8·01	0·253	0·024	"	None....	"	.....	.....	1398	"
J. J. COSTIGAN, INSPECTOR.									
7·14	0·197	0·045	None.....	None.....	Ppt	0·5	.....	40906	Spirit vinegar.
7·05	0·185	0·017	"	"	"	0·5	0·07	40910	"
J. A. RICKEY, INSPECTOR.									
5·16	0·117	0·022	none.....	none.....	ppt.	trace.....	...	49021	Spirit vinegar.
4·23	0·077	0·020	slight trace.	slight trace.	"	"	.....	49022	"
4·71	0·095	0·025	" ..	" ..	"	"	.....	49025	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion.)
								DISTRICT OF KINGSTON—
1911.								
Nov. 1	Vinegar ..	48537	W. E. Hopkinson, Kingston.	1 qt..	10	.....	Fenwick Hendry Co., Kingston.	White wine. ...
" 1	" ..	48538	Geo. Gibson, Kingston.	1 " .	10	D. B. Murray, Kingston.	.....	" ..
" 1	" ..	48539	L. W. Murphy, Kingston.	1 " .	10	" ..	.....	" .
" 1	" .	48540	J. Cullen, Kingston.	1 " .	10	" ..	.....	" ..
" 1	" ..	48541	C. Saunders, Kingston.	1 " .	10	Heinz, Toronto..	.....	" .
" 1	" ..	48542	C. H. Pickering, Kingston.	1 " .	10	Whitby Fruit Vinegar Co.	.....	" ..
" 1	" ..	48544	E. S. Sullard, Kingston.	1 " .	10	D. B. Murray, Kingston.	.....	" ..
" 1	" ..	48545	D. Couper, Kingston.	1 " .	10	" ..	.....	" ..
" 2	" ..	48546	D. B. Murray, Kingston.	1 " .	10	Vendor.	.....	" ..
" 2	" ..	48547	Anderson Bros., Kingston.	1 " .	10	D. B. Murray, Kingston.	.....	" ..
								DISTRICT OF TORONTO—
Oct. 16	Vinegar ..	47355	Dom. Vinegar Works, Hamilton.	1 qt..	10	Vendors.....	.....	XXX White Wine.
" 16	" ..	47356	Imperial Vinegar & Pickling Co., Ltd., Hamilton	1 " .	10	"	.....	" ..
" 19	" .	47357	The Wilson Lytle Badgerow Co., Ltd., Toronto.	1 " .	10	"	.....	" ..
" 19	" ..	47359	The Queen City Vinegar Co., Ltd., Toronto.	1 " .	10	"	.....	" ..
Nov. 3	" ..	47384	The Stouffville Cider & Vinegar Co., Ltd., Stouffville.	1 " .	10	"	.....	" ..
								DISTRICT OF LONDON—
Oct. 16	Vinegar ..	47804	Chute & Smith, St. Thomas.	1 qt.	10	Unknown	.....	Wine vinegar..
" 17	" ..	47822	Clark & Sons, Ridgetown.	1 " .	5	S. Allen, Norwich.	.....	White wine vinegar.
" 19	" ..	47838	Miller & Wigle, Essex.	1 " .	10	Unknown	.....	" ..
" 19	" ..	47839	A. Raines, Essex	1 " .	10	S. Allen, Norwich.	.....	" ..
" 19	" ..	47841	O. H. Bricker, Essex.	1 " .	10	" ..	.....	" ..
19 19	" ..	47848	Miller & Wigle, Essex.	1 " .	10	Unknown ..	.....	" ..

VINEGAR (WHITE WINE).

Results of Analysis.								No. of Sample.	Remarks and opinion of the Chief Analyst.
Gms. per 100 cc.						Formic Acid.			
Acidity as Acetic.	Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented vinegar.	Mgms. in 100 cc.	Parts per 1000 of total acid		
JAS. HOGAN, INSPECTOR.									
.. ..	.....	.....	.. ....	.. ...	.....	.....	.....	* 48537	Samples lost.
5·37	0·104	0·018	trace.....	none	ppt.....	... .	....	48538	Spirit vinegar.
5·07	0·095	0·019	"	slight trace.	"	.....	.. ...	48539	"
5·22	0·151	0·018	"	trace.	"	.....	.....	48540	"
5·31	0 145	0·034	"	none.	"	....	. ..	48541	"
3·18	0·145	0·028	"	trace.....	"	... .	.....	48542	"
5·52	0·176	0·020	"	slight trace.	"	.....	.....	48544	"
6·36	0·088	0·015	"	trace.....	"	.....	.....	48545	"
11·31	0·198	0·017	"	slight trace.	"	.....	.....	48546	" above vinegar strength in acetic acid.
5·55	0·103	0·020	"	" ..	"	.....	.. ...	48547	Spirit vinegar.
H. J. DAGER, INSPECTOR.									
5·25	0·111	0·022	trace.....	slight trace.	slight ppt.	none . ..	.....	47355	Spirit vinegar.
5·34	0·107	0 020	"	" ..	" ..	.....	...	47356	"
5·37	0·094	0·019	"	" ..	" ..	.....	....	47357	"
5·25	0·117	0·020	"	" ..	" ..	none.	. .	47359	"
5·10	0·127	0·023	"	trace.....	ppt.....	....	.....	47384	"
JNO. TALBOT, INSPECTOR.									
4·68	0·362	0·047	trace.....	slight trace.	ppt..... .	trace.	... .	47804	Spirit vinegar.
5·61	0·140	0·030	" ..	" ..	" ..	" ..	.....	47822	"
.....	....	.....	... .	... .	....	.....	.....	*47838	Samples lost.
4·11	0·145	0·037	trace.....	trace.....	ppt. . .	trace.....	. ....	47839	Spirit vinegar.
5·43	0·102	0·027	"	none	"	"	.....	47841	"
3·26	0·264	0·070	"	"	very slight ppt.	"	.....	47848	"

* Both samples broken in transit.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF MANITOBA—								
1911.								
Oct. 24	Vinegar..	47418	The Blackwood, Ltd., Winnip'g	1 qt.	Nil.	Vendors.....	.....	Proof — White wine.
" 24	"	48420	The Dyson Co., Winnipeg.	1 "	"	"	.....	White wine spirits.
" 26	"	47427	B. J. Wray, Winnipeg.	1 "	"	"	.....	White wine proof.
DISTRICT OF CALGARY—								
Nov. 8	Vinegar...	44066	Lepage Bros., Medicine Hat.	1 qt.	15	Wilson, Lytle & Badgerow, Toronto.	.....	White wine.
" 8	"	44907	L. B. Cochrane, Medicine Hat.	1 "	15	" ..	.....	" ..
" 9	"	44008	H. W. Ireland & Co., Med. Hat.	1 "	20	The Dyson Co., Winnipeg.	.....	" ..
" 20	"	44010½	R. J. Frizzle, Calgary.	1 "	25	" ..	.....	" ..
" 20	"	44012	Jenkins & Co., Calgary.	1 "	25	Georgeson & Co., Calgary.	.....	" ..
DISTRICT OF NELSON								
Oct. 19	Vinegar...	48434	Trites Wood Co., Fernie, B.C.	3 bots.	15	Dyson & Co., Winnipeg.	.....	Wine vinegar...
" 19	"	48443	Fernie Co-operative Store, Fernie, B.C.	3 "	15	Imperial Vinegar Co., Hamilton.	.....	" ..
" 27	"	48458	Hunter Bros., Rossland, B.C.	24 oz.	15	Wilson, Lytle & Badgerow, Toronto.	....	" ..
DISTRICT OF VICTORIA—								
Nov. 9	Vinegar...	47636	Wm. B. Hall, Victoria.	1 qt.	25	R. J. Whitlock, Los Angeles, Cal.	.....	Good Judgment Brand. Genuine Wine Vinegar.

VINEGAR (WHITE WINE).

Results of Analysis.									
Gms. per 100 cc.						Formic Acid.			
Acidity as Acetic.	Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented vinegar.	Mgms. in 100 cc.	Parts per 1000 of total acid.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
A. C. LARIVIÈRE, INSPECTOR.									
6·48	0·473	0·127	large.....	medium ..	very slight ppt.....	39·5	6·10	47418	Made in part from acetic acid. Doubtful.
6·60	0·352	0·100	"	" ..	ppt.	1·1	0·16	47420	Spirit vinegar.
6·63	0·137	0·090	"	" ..	slight ppt.	45·9	6·92	47427	Made from acetic acid adulterated.
R. W. FLETCHER, INSPECTOR.									
5·85	0·148	0·023	slight trace.	trace.....	ppt	....	....	44006	Spirit vinegar.
10·74	0.401	0·038	" ..	slight trace.	"	.....	..	44007	" above vinegar strength.
10·56	0·532	0·167	large.....	medium ..	"	.....	...	44008	Spirit vinegar, above vinegar strength.
5·43	0·302	0·100	large amt.	trace.....	" ...	.....	..	44010½	Spirit vinegar.
3·96	0·318	0·044	medium ..	medium ..	"	.....	.....	44012	"
THOS. PARKER, INSPECTOR.									
10·17	0·480	0·105	large amt.	small amt.	heavy ppt.	1·1	0·11	48434	Spirit vinegar, above vinegar strength.
8·85	0·225	0·031	trace.....	none.	" ..	1·4	0·16	48443	Spirit vinegar.
5·40	0·113	0·021	"	"	" ..	.....	...	48458	"
D. O'SULLIVAN, INSPECTOR.									
4·50	0·848	0·130	Trace.....	Trace.....	....	.....	.....	47636	Genuine wine vinegar.

* Both samples broken in transit.

Date of Collect.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion).
								DISTRICT OF NOVA SCOTIA—
1911.								
Oct. 27	Vinegar...	46724	Wentzells, Ltd., Halifax, N.S.	1½ qt.	6	Wilson, Lytle & Badgerow, Toronto.	Manufacturers	Sold as malt....
" 27	" ..	46725	E. W. Crease & Son, Halifax, N.S.	1½ "	9	....	.....	" ....
Nov. 14	" ..	46727	De Wolfe & Lamont, Kentville, N.S.	1½ "	10	Wilson, Lytle & Badgerow, Toronto.	Manufacturers	Malt..... ....
" 17	" ..	46729	Jas. Scott & Co., Halifax, N.S.	1½ "	15	Robt. Burnett, London, Eng.	Manufacturer.	" .....
								DISTRICT OF PRINCE EDWARD ISLAND—
Oct. 17	Vinegar...	46094	Beer & Goff, Ch. Town, P.E.I.	1 qt...	20	....	Carvell, Bros., Ch.Town, P. E.I.	Malt.....
" 21	" ..	46096	D. McKenzie & Co., Kensington, P.E.I.	1 " .	15	McCready & Son, Ltd., St. John, N.B.	.....	" .....
" 26	" ..	46099	A. Gates & Co., Ch. Town, P. E.I.	1 " .	16	Purnell's, Bristol, Eng.	....	" .....
								DISTRICT OF NEW BRUNSWICK—
Oct. 17	Vinegar...	45528	W. A. Fairweather Co. Ltd., St. John.	1 qt...	10	Vendors.....	....	Malt... .. ....
								DISTRICT OF QUEBEC—
Oct. 12	Vinegar...	36983	Cantin et Frères, 271 rue St. Joseph, Québec.	1 qt...	20	Unknown. . ..	Unknown.....	Malt.....
								DISTRICT OF ST. HYACINTHE—
Nov. 7	Vinegar...	1395	A. S. Johnson, Thetford Mines	1 bot..	25	Cosse & Blackwell, England.	.....	Malt.....

VINEGAR (MALT).

Results of Analysis.												
Gms. per 100cc.					Phosphates Mgms. P_2S_5 per 100cc.							
Acidity as acetic.	Solids.	Ash.	Soluble Ash.	Alkalinity of soluble ash ccs. $\frac{N}{10}$ acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate Ppt.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH—INSPECTOR.											
4·74	1·720	0·206	0·121	6·8	4·0	28·2	Medium	Trace...	Copious	46724	Genuine.—Solids & sol. P_2O_5 low.
4·59	2·514	0·300	0·204	10·4	17·6	28·4	"	" ..	"	46725	Genuine.
5·01	1·350	0·148	0·039	2·8	9·6	45·0	Trace...	" .	"	46727	Solids, ash, sol. ash, alkalinity are low. Doubtful.
5·25	2·993	0·363	0·219	0·8	trace	59·0	Medium	Large ..	"	46729	Genuine. Alkalinity & sol. P_2O_5 low.
WM. A. WEEKS—INSPECTOR.											
5·04	3·180	0·370	0·218	1·4	none	65·0	Medium	Large ..	Copious	46094	Genuine—Alkalinity & sol. P_2O_5 low.
4·71	0·675	0·040	0 023	1·4	2·0	8 0	Trace...	Trace...	Slight...	46096	Imitation malt vinegar.
4·74	2·546	0·246	0·156	9·6	23·2	28·4	Medium	Medium	Copious	46099	Genuine.
J. C. FERGUSON—INSPECTOR.											
4·98	2·165	0·185	0·087	3·6	12·0	29·6	Medium	Trace...	Medium	45528	Ash, soluble ash & alkalinity low. Doubtful.
F. X. W. E. BELAND—INSPECTOR.											
2·04	3·490	0·537	0·326	1·6	2·6	85·2	Medium	Lge amt	Copious	36983	Acidity alkalinity & soluble P_2O_5 low.
J. C. ROULEAU—INSPECTOR.											
5·58	2·058	0·320	0·201	9·8	31·2	46·8	Lge amt	Trace...	Medium	1395	Genuine; but ead ppte. low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion).
								DISTRICT OF OTTAWA—
1911.								
Oct. 13	Vinegar.	49023	A. Parkinson & Son, Kemptville.	1 qt.	13	Wilson, Lytle & Badgerow, Toronto.	.....	Malt vinegar.
" 21	"	49026	D. A. Younghusband, Ottawa.	1 "	15	Purnells, Bristol, Eng.	.....	"
" 25	"	49028	H. Armstrong, Bank St., Ottawa.	1 "	20	.....	F. J. Castle Co., Ltd., Ottawa	"
" 26	"	49029	Goodall Bros., Ottawa.	1 "	20	Holbrooks, Ltd., London, Eng.	.....	"
								DISTRICT OF TORONTO—
Oct. 19	Vinegar.	47358	The Wilson-Lyttle Badgerow Co. Ltd., Toronto.	1 qt.	15	Vendors.....	.....	Guaranteed absolutely pure Malt Vinegar. Brewed from pure barley malt. Made from malt alone.
								DISTRICT OF LONDON—
Oct. 18	Vinegar.	47833	R. T. Moran, Leamington.	1 qt.	20	Holbrook Ltd., London, Eng.	.....	Pure Malt Vinegar.
								DISTRICT OF MANITOBA—
Oct. 18	Vinegar.	47423	Western Mercantile Co., Ltd., Winnipeg.	1 qt.	5	Unknown	Manufacturers	XXX Brown Vinegar.
" 26	"	47425	H. Logrenia, Winnipeg.	1 "	10	The Dyson Co., Winnipeg.	"	XXX Spirits Malt.
" 26	"	47426	W. H. Wright, Winnipeg.	1 "	5	The Blackwood, Ltd., Winnipeg	"	XXX Malt Vinegar.

VINEGAR (MALT.)

Results of Analysis.												
Gms. per 100cc.			Soluble ash.	Alkalinity of soluble ash ccs. $\frac{N}{10}$ acid for 100 cc.	Phosphates Mgms. P_2O_5 per 100 cc.		Chlorides.	Sulphates.	Lead acetate Ppt.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Acidity as acetic.	Solids.	Ash.			Soluble.	Insoluble.					
J. A. RICKEY—INSPECTOR.											
4·23	1·530	0·215	0·119	2·8	10·8	58·0	Medium	Trace...	Copious	49023	Genuine. Solids & alkalinity are low.
7·14	2·465	0·350	0·233	4·2	9·6	36·2	Lge acc.	" ..	"	49026	Genuine.
5·79	1 318	0·148	0·083	1·6	4·2	23·0	Medium	" ..	Medium	49028	Solids, ash, soluble ash, alkalinity & soluble P_2O_5 low. Doubtful.
5·34	2·786	0·324	0·197	1·0	1·6	51·4	"	Lge amt	Copious	49029	Genuine, but alkalinity & soluble P_2O_5 are low.
H. J. DAGER, INSPECTOR.											
4·83	1·440	0·194	0·124	1·8	2·0	29·2	Small amount.	Medium	Medium	47358	Solids, soluble ash, alkalinity and soluble P_2O_5 low; lea-precipitate low Doubtful.
JNO. TALBOT, INSPECTOR.											
5·43	2·900	0·378	0·226	1·2	1·8	62·8	Small amount.	Large amount.	Copious.	47833	Genuine, but alkalinity and soluble P_2O_5 low.
A. C. LARIVIERE, INSPECTOR.											
2·82	0·708	0·115	0·096	1·8	None.	Trace.	Small.	Trace.	Trace.	47423	Imitation malt vinegar.
5·16	0·515	0·130	0·110	2·4	"	2·0	Medium	"	None.	47425	" "
3·21	0·716	0·106	0·088	1·6	"	Trace.	Small.	"	"	47426	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)
DISTRICT OF CALGARY—								
1911.								
Nov. 9	Vinegar. .	44009	Spencer & Todd, Medicine Hat.	1 qt..	15	Wilson, Lytle & Badgerow, Toronto.	.....	Malt.
" 9	" .	44010	Hewitt & Armstrong, Medicine Hat.	1 " ..	15	Holbrook & Co., London, Eng.	.....	"
" 20	" ..	44011	C. Bradley, Calgary.	1 " ..	25	Lytle & Badgerow, Toronto	.....	"
" 20	" ..	44013	Summers & Comfoot, Calgary.	1 " ..	25	Wilson, Lytle & Badgerow, Toronto.	.....	"
" 20	" ..	44014	A. E. Green, Calgary.	1 " ..	25	The Dyson Co., Winnipeg.	.....	"
DISTRICT OF NELSON—								
Oct. 19	Vinegar.	48430	Crow's Nest Trading Co., Fernie, B.C.	3 bots.	15	White Star Mf'g Co., Winnipeg.	.....	Malt Vinegar.
" 19	" ..	48433	Trites Wood Co., Fernie, B.C.	3 " ..	15	Dyson & Co., Winnipeg.	.....	"
" 19	" ..	48444	Fernie Co-operative Store, Fernie, B.C.	3 " ..	15	" ..	.....	"
" 27	" ..	48453	Union Co-operative Association, Rossland, B.C.	24 oz.	15	Wilson, Lytle & Badgerow, Toronto.	.....	"
" 27	" ..	48459	Hunter Bros., Rossland, B.C.	24 " .	15	" ..	.....	"
" 28	" ..	48480	A. S. Horswill, Nelson, B.C.	24 " .	15	A. Macdonald & Co., Winnipeg.	.....	"
DISTRICT OF VANCOUVER—								
Oct. 18	Vinegar. .	38215	David Spencer, Vancouver.	1 qt..	15	W. K. Houston Victoria.	.....	Labelled Malt Vinegar absolutely pure.
" 18	" ..	38216	H. A. Edgett, Hasting St., Vancouver.	1 " ..	25	Grimble Co., London, Eng.	.....	Malt Vinegar...
" 18	" ..	38217	Foran Bros, Carrall St., Vancouver.	1 " ..	25	Fardons Ltd., Birmingham, Eng.	.....	Malt Vinegar unsurpassed for purity and flavour.
18	" ..	38218	F. Filion, Carrall St., Vancouver	1 " .	25	Crosse & Blackwell, London, Eng.	.....	Made from Malt and free from all mineral acids.

VINEGAR (MALT).

Results of Analysis.											
Gms. per 100cc.					Phosphates Mgms. P^2O^5 per 100cc.						
Acidity as acetic.	Solids.	Ash.	Soluble Ash.	Alkalinity of soluble ash ccs. $\frac{N}{10}$ acid per 100cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate Ppt.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. W. FLETCHER, INSPECTOR.											
10·35	0·756	0·044	0·016	3·7	Trace.	2·0	None.	None.	None.	44009	Imitation malt vinegar. Acidity very high.
4·95	2·722	0·304	0·168	1·4	2·0	55·2	Trace.	Medium	Copious.	44010	Genuine, but alkalinity and soluble P_2O_5 are low.
9·06	0·665	0·027	0·013	2·6	None.	4·0	None.	None.	None	44011	Imitation malt vinegar. Acidity high.
10·08	0·916	0·040	0·022	4·0	"	3·2	"	"	"	44013	" "
11·70	0·578	0·044	0·027	3·0	"	2·8	Slight trace.	Slight trace.	"	44014	" "
THOS. PARKER, INSPECTOR.											
10·80	0·650	0·042	0·032	3·2	None.	2·2	Slight trace.	None.	None.	48430	Imitation malt vinegar. Acidity high
9·90	0·756	0·120	0·095	2·2	"	4·6	Medium	Trace.	Slight.	48433	" "
10·71	1·490	0·135	0·101	3·2	"	4·2	"	"	Trace.	48444	" "
9·69	0·878	0·074	0·061	5·6	"	3·2	Small.	None.	None.	48453	" "
5·16	0·472	0·055	0·031	3·0	"	2·4	Trace.	"	"	48459	Imitation malt vinegar.
8·82	0·760	0·108	0·085	3·0	"	1·8	Medium	Trace.	"	48480	Imitation malt vinegar. Acidity high.
J. F POWER—INSPECTOR.											
4·50	0·310	0·014	0·010	1·0	none.	trace.	Slight trace.	None...	None...	38215	Imitation malt vinegar.
4·92	2·100	0·346	0·204	2·4	"	40·8	Large..	Large..	Copious	38216	Genuine. Alkalinity and soluble P^2O^5 low.
5·19	3·020	0·325	0·186	6·4	26·1	55·6	" ..	Medium	" .	38217	Genuine.
5·76	1·712	0·285	0·160	10·0	31·6	48·0	" ..	" .	" .	38218	Genuine. Solids low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF VANCOUVER—
1911.								
Oct. 19	Vinegar.	38221	A. & C. Grocery, Granville St., Vancouver.	1 qt.	25	Holbrook & Co., London, Eng.	.....	Malt Vinegar Purity and Excellence guaranteed.
" 19	"	38222	London Grocery Co., City Br'ch Vancouver.	1 "	15	Pendray & Co., Victoria, B.C.	.....	Labelled English Malt Vinegar A pure and healthful article for the table
" 19	"	38223	H. H. Owens, Granville, St., Vancouver.	1 "	25	White Cottells, London, Eng.	.....	Malt Vinegar. This vinegar is absolutly pure.
" 19	"	38224	W. H. Walsh, Seymour and Davie, Vancouver.	1 "	20	Thos. W. Lipton, London, Eng.	.....	Pure Malt Vinegar.
								DISTRICT OF VICTORIA—
Oct. 25	Vinegar.	47631	Windsor Grocery Co., Victoria, B.C.	1 qt.	25	White Cottells & Co., Camberwell, London, Eng.	.....	Malt Vinegar...
" 25	"	47632	"	"	25	Grimble & Co., Cumberland Market, London, Eng.	.....	" ...
" 26	"	47633	The West End Grocery Co., Ltd, Victoria, B.C.	"	15	.....	W.K. Houston & Co., Victoria, B.C.	" ...
" 26	"	47634	"	"	25	John Stephens Sons & Co., Gloucester, Eng.	.....	" ...
Nov. 9	"	47635	Copas & Young, Victoria, B.C.	"	25	Purnell & Panter Ltd., Bristol, Eng.	.....	" ...
" 13	"	47637	Erskine & Co., Victoria, B.C.	"	35	H. J. Heinz, Pittsburg, P.	.....	Pure Malt Vinegar.
" 15	"	47639	Dixi H. Ross & Co., Victoria, B.C.	"	25	Crosse & Blackwell, London, Eng.	.....	" ...
" 15	"	47640	Harrison and McDonald, Victoria, B.C.	"	25	Holbrook & Co., London, Eng.	.....	" ...

VINEGAR (MALT).

Results of Analysis.											
Gms. per 100cc.					Phosphates Mgms. P^2O^5 per 100cc.						
Acidity as acetic.	Solids.	Ash.	Soluble Ash.	Alkalinity of soluble ash ccs. $\frac{1}{10}$ N acid per 100cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate Ppt.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. F. POWER, INSPECTOR—*Concluded.*											
5·58	3·406	0·376	0·227	1·2	trace.	61·2	Medium	Large ..	None...	38221	Genuine. Alkalinity and soluble P^2O low.
3·93	0·518	0·017	0·010	1·0	none.	about 2·0	Trace...	None...	None...	38222	Imitation malt vinegar.
5·46	1·748	0·405	0·261	6·2	8·0	46·0	Large ..	Medium	Copious	38223	Genuine. Solids low.
5·13	2·080	0·225	0·113	6·8	17·2	55·0	Medium	" .	" .	38224	Genuine.
D. O'SULLIVAN—INSPECTOR.											
5·49	1·810	0·414	0·257	7·4	9·7	40·8	Large ..	Medium	Copious	47631	Genuine. Solids low.
4·62	2·322	0·342	0·208	1·0	none.	28·0	Medium	Large ..	" .	47632	Genuine. Alkalinity and soluble P^2O^5 low.
4·86	0·345	0·020	0·015	1·6	"	trace.	None...	None...	None...	47633	Imitation malt vinegar.
4·26	2·820	0·466	0·270	7·6	"	24.4	Large ..	Medium	Medium	47634	Genuine. Sol. P^2O^5 and lead Ppt low.
5·10	2·162	0·314	0·191	9·6	10·8	36·8	Medium	" .	Copious	47635	Genuine.
5·16	2.322	0·252	0·104	5·8	18·1	54·0	" .	" .	" .	47637	Genuine.
5·73	1·830	0·310	0·185	10·0	34·4	47·2	" .	Trace...	" .	47639	Genuine. Solids low.
5·55	3·530	0·356	0·201	1·2	trace.	61·6	" .	Medium	" .	47640	Genuine. Alkalinity and soluble P^2O^5 low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF NOVA SCOTIA—
1911.								
Oct. 25	Vinegar...	46722	Nat. Drug & Chem. Co., Halifax, N.S.	1½ pt..	15	Vendors.....	.....	Sovereign Brand Cider Vinegar.
" 25	" ..	46723	J. Frank Crowe, Ltd., Halifax, N.S.	1½ " .	8	Wilson, Lytle & Badgerow, Toronto.	Manufacturers	Sold as cider....
Nov. 15	" ..	46728	Annapolis Valley Vinegar Co., Bridgetown, N.S.	1½ " .	Nil.	Vendors.....	.....	Cider.....
								DISTRICT OF PRINCE EDWARD ISLAND—
Oct. 17	Vinegar...	46093	S. Sanderson & Co., Charlottetown, P.E.I.	1 qt..	10	Standard Vinegar Co., Berwick, N.S.	.....	Cider.....
								DISTRICT OF NEW BRUNSWICK—
Oct. 17	Vinegar...	45526	Geo. A. Troop & Co., St. John, N.B.	1 qt.	10	Vendors.....	.....	Apple Cider Vinegar.
" 17	" ..	45529	W. A. Fairweather Co., Ltd., St. John, N.B.	1 " ..	10	"	.....	" "
Nov. 7	" ..	45531	John McKnight, Fredericton, N.B.	1 " ..	10	M. W. Graves & Co., Bridgetown, N.S.	.....	"
" 8	" ..	45532	Woolverton & Gibson, Woodstock, N.B.	1 " .	10	Thos. McCready &Son, St. John, N.B.	Furnished by mfrs. to vendors as xxxc.	Cider Vinegar .
" 14	" ..	45533	King, Asbell & Co., Sussex, N.B.	1 " ..	5	M. W. Graves & Co., Bridgetown, N.S.	.....	" " .
" 15	" ..	45534	D. A. McBeath, Moncton, N.B.	1 " ..	10	Annapolis Valley Cyder Vinegar Co., Bridgetown, N.S.	.....	" " ..
								DISTRICT OF ST. HYACINTHE—
Oct. 26	Vinegar...	1394	Olmstead & Boright, Sutton.	1 pt..	5	Wilson, Lytle & Badgerow, Toronto.	.....	Cider Vinegar ..

VINEGAR (CIDER).

Results of Analysis.												
Gms. per 100cc.					Phosphates Mgms. P_2O_5 per 100cc.							
Acidity as Acetic.	Solids.	Ash.	Soluble ash.	Alkalinity of soluble ash ccs. in acid per 100cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead acitate ppt.	Polarization.	No. of Sample.	Remarks and opinion of the Chief Analyst.
R. J. WAUGH—INSPECTOR.												
4·26	0·670	0·092	0·075	10·8	Trace.	Trace.	Heavy trace.	None.	None...	0·0	46722	Is not a true cider vinegar. Doubtful.
3·75	0·156	0·021	0·013	1·8	None.	None.	Slight trace.	Trace.	" ...	.....	46723	" "
3·15	2·123	0·330	0·297	41·6	7 8	6·8	Trace	" .	Medium	−0·4	46728	Genuine cider vinegar.
WM. A. WEEKS—INSPECTOR.												
4·95	2·286	0·374	0·342	46·8	9·6	6·4	Slight trace.	Slight trace.	Medium	−1·1	46093	Genuine cider vinegar.
J. C. FERGUSON—INSPECTOR.												
4·23	1·543	0·350	0·300	35·6	3·3	10·2	Trace.	Slight trace.	Copious	−0·9	45526	Genuine cider vinegar.
3·45	1·762	0·404	0·268	16·4	None.	11·2	Very large a'ount	Trace.	" .	−1·4	45529	Alkalinity of ash too low. Doubtful.
5·13	1·546	0·260	0·238	31·6	6·8	7·6	Trace.	Slight trace.	Medium	−0·7	45531	Genuine cider vinegar.
4·59	0·102	0·006	None.	0·6	None.	None.	Slight trace.	None.	None...	... .	45532	Is not cider vinegar. Doubtful.
4·14	2·875	0·362	0·298	42·8	4·8	10·6	" .	Slight trace.	Copious	0·0	45533	Genuine cider vinegar.
0·63	3 076	0·206	0·180	26·4	2·6	6·2	" .	" .	Very copious.	.....	45534	Is cider. Alcoholic and acetic fermentations going on.
J. C. ROULEAU—INSPECTOR.												
5·82	2·170	0·250	0·193	24·8	2·0	14·4	Trace.	Slight trace.	Copious	−0·7	1394	Probably genuine Phosphates and alkalinity low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Furnisher.	Inspector's Report. (Is not and expression of opinion.)
								DISTRICT OF OTTAWA—
1911.								
Oct. 16	Vinegar...	49024	W. West, Almonte.	1 qt..	8	Annapolis Valley Cyder Co., Ltd., Bridgetown, N.S.	.....	Cider Vinegar..
" 25	" ..	49027	A. Moreland, Bank St., Ottawa.	1 " ..	15	M. W. Graves & Co., Bridgetown, N.S.	F. J. Castle, Ltd., Ottawa	" " ..
" 27	" ..	49030	R. E. Powell, WellingtonSt., Ottawa.	1 " ..	10	S. A. Allen, Norwich, Ont.	.....	" " ..
								DISTRICT OF TORONTO—
Oct. 24	Vinegar..	47361	C. W. Fox, Owen Sound.	1 qt ..	10	.....	Taylor & Pringle, Owen Sound.	XXX Cider Vinegar.
" 26	" ..	47362	G. Dyce & Co., Meaford.	" .	10	.....	The Dominion Vinegar Co., Ltd., Hamilton.	" ..
Nov. 2	" ..	47363	The Whitby Fruit & Vinegar Co., Whitby.	" .	10	Vendors.....	.....	" ..
" 3	" ..	47364	The Stouffville Cider & Vinegar Co. Ltd., Stouffville.	" .	10	"	.....	" ..
								DISTRICT OF LONDON—
Oct. 16	Vinegar..	47806	Moylan & Moylan, St. Thomas.	1 qt..	5	Belleville Fruit & Vinegar Co., Belleville.	.....	Cider Vinegar..
" 16	" ..	47809	E. J. Witheford, St. Thomas.	" .	5	Unknown. ...	.....	" ..
" 17	" ..	47814	J. Caron, Ridgetown, Ont.	" .	10	.....	Masuret & Co. London.	" ..
" 19	" ..	47843	A. Detwiler, Essex.	" .	8	.....	J. F. Smith & Co., Windsor.	" ..
								DISTRICT OF NELSON
Oct. 27	Vinegar .	48460	Hunter Bros., Rossland.	24 oz..	15	lson Lytle & adger ow, Tonto.	.....	Cider Vinegar..

VINEGAR (CIDER.)

Results of Analysis.												Remarks, and opinion of the Chief Analyst.
Gms. per 100 cc.			Soluble Ash.	Alkalinity of soluble Ash ccs. $\frac{N}{10}$ acid per 100 cc.	Phosphates Mgms. P_2O_5 per 100 cc.		Chlorides.	Sulphates.	Lead Acitate Ppt.	Polarization.	No. of Sample.	
Acidity as acetic.	Solids.	Ash.			Soluble.	Insoluble.						
J. A. RICKEY—INSPECTOR.												
3·57	1·660	0·320	0·290	37·2	6·4	7·6	Trace.	None.	Medium	−0·8	49024	Genuine cider vinegar.
4·20	1·824	0·332	0·298	41·6	6·2	8·8	" .	Trace.	" .	−0·9	49027	" "
5·25	2·250	0·240	0·196	23·6	5·6	2·0	" .	" .	" .	−2·3	49030	Probably genuine, but alkalinity and phosphoric acid are low.
H. J. DAGER—INSPECTOR.												
5·34	0·925	0·116	0·061	4·8	None.	9·8	heavy trace.	Trace.	Medium	0·0	47361	Is not cider vinegar. Doubtful.
5·13	0·310	0·043	0·029	1·6	" .	11·8	None.	Slight trace.	None...	...	47362	Is not cider vinegar. Doubtful.
4·50	2·667	0·330	0·280	39·2	6·6	10·6	Slight trace.	" .	Copious	− 1·5	47363	Genuine cider vinegar.
4·89	0·946	0·122	0·072	8·0	None.	7·6	Trace.	Trace.	None...	− 0·4	47364	Is not cider vinegar. Doubtful.
JNO. TALBOT—INSPECTOR.												
5·25	1·524	0·286	0·198	19·6	None.	16·0	Large amt.	Slight trace.	Medium	− 1·4	47806	Doubtful. Phosphates and alkalinity too low.
2·91	0·332	0·075	0·048	6·0	" .	2·0	Slight trace.	" .	None...	0·0	47809	Is not cider vinegar. Doubtful.
4·00	0·462	0·070	0·047	5·6	Trace.	2·8	" .	" .	" ...	0·0	47814	" "
4·05	0·350	0 050	0·030	4·4	" .	3·0	" .	None.	" ...	+ 0·2	47843	" "
THOS. PARKER—INSPECTOR.												
5·28	0·476	0·048	0·019	3·2	None.	2·4	Slight trace.	None.	None...	+ 0·8	48460	Is not cider vinegar. Doubtful.

BULLETIN No. 235—VINEGAR NOT SOL

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion).
								DISTRICT OF QUEBEC—
1911.								
Oct. 16	Vinegar...	36987	E. Grégoire, 128 Rue du Pont, Quebec.	1 qt..	15	Drouin & Frere & Rattray.	Manufacturers	.....
" 17	" ..	33988	W. Cantin, 133 Rue du Pont, Quebec.	1 " .	20	Unknown	J. C. Letourneau.	.....
								DISTRICT OF ST. HYACINTHE
Oct. 25	Vinegar...	1391	J. Dagenais et Cie, Farnham.	1 pt..	5	E. de la Bruyere, et Cie, Bordeaux.	.....	.....
Nov. 8	" ..	1396	E. Huard et Cie, Megantic.	1 " .	5	Eureka Vinegar Works, Quebec	.....	Proof. Uncoloured.
" 9	" ..	1397	Art. Leclair, North Coaticook.	1 " .	....	.....	D. S. Bachand, Coaticook.	.....
" 23	" ..	1399	Victor Cabana, St. Hyacinthe.	1 " .	5	St. Hyacinthe Dist. Co.	.....	Proof.
								DISTRICT OF MONTREAL—
Oct. 24	Vinegar ..	40907	D. Etu, St. Agathe de Mont., P.Q.	1 qt..	15	.....	Hudon, Hebert et Cie, Ltd.	.....
" 17	" ..	40908	L. M. Lefebvre, 393 Rachel St. E., Montreal.	1 " .	15	.....	.....	Bolmans. Imported.
" 17	" ..	40909	J. Niding, 54 Rachel St. E., Montreal.	1 " .	12	.....	.....	.....
" 17	" ..	40911	Dubois & Marcil, 391 Roy St., Montreal.	1 " .	15	.....	Laporte, Martin et Cie, Ltd.	.....
" 27	" ..	40912	L. A. Chartier, Joliette, P.Q.	1 " .	10	.....	.....	.....
	" ..	40913	J. E. Hebert, Beauharnois, P.Q.	1 pt..	13	.....	.....	.....
	" ..	40914	O. Marchand, Beauharnois, P.Q.	1 " .	10	.....	L. Chaput Fils & Co., Ltd.	.....
	" ..	40915	J. A. Faubert, Beauharnois, P.Q.	1 " .	15	Heinz.....	.....	.....
								DISTRICT OF MANITOBA—
Oct. 25	Vinegar ..	47421	Mikush & Bierbaumer, Winnipeg.	1 qt..	10	Unknown	Unknown ...	.....
"	" ..	47424	A. J. Kemball, Winnipeg.	1 " .	10	"	"	.....

AS WINE, MALT OR CIDER VINEGARS.

Results of Analysis.									
Gms. per 100 cc.						Formic Acid.			
Acidity as acetic.	Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented vinegar.	Mgms. in 100 cc.	Parts per 1000 of total acid.	No. of Sample.	Remarks and opinion of the Chief Analyst.
F. X. W. E. BELAND—INSPECTOR.									
7·56	0·308	0·050	heavy trace.	none.	.....	2·6	0·35	36987	Spirit vinegar, possibly fortified by actic acid. Doubtful.
5·01	0·415	0·018	trace.....	"	... ...	0·5	0·10	36988	Spirit vinegar.
J. C. ROULEAU, INSPECTOR.									
4·98	0·139	0·014	trace.	slight trace.	ppt.,.	. . ....	. ..	1391	Spirit vinegar.
7·38	0·177	0·039	" ...	none.....	"	.....	. ..	1396	"
4·17	0·175	0·035	slight trace.	slight trace.	"	none.....	.. ...	1397	"
6·72	1·028	0·042	" ..	none.....	"	.....	.... .	1399	"
J. J. COSTIGAN, INSPECTOR.									
4·56	0·117	0·046	trace.....	none. ..	ppt..	.....	...	40907	Spirit vinegar.
4·16	0·131	0·030	none.	trace.....	very slight ppt.	4·4	1·06	40908	Spirit vinegar, fortified by acetic acid. Doubtful.
5·10	0·122	0.030	trace.....	"	ppt..	trace... ..	.....	40909	Spirit vinegar.
5 28	0·025	0·015	none.	none.	clear. ...	31·6	5·98	40911	Made from acetic acid. Adulterated.
6·12	0·197	0·029	trace.....	trace.....	ppt..	.....	.....	40912	Spirit vinegar.
4·98	0·170	0.031	heavy trace.	slight trace.	"	....	.....	40913	"
7·53	0·160	0·018	trace.....	none	slight ppt.	·0	0·80	40914	Spirit vinegar, fortified by acetic acid. Doubtful.
4·65	0·186	0·035	"	trace.....	"	.....	.....	40915	Spirit vinegar.
A. C. LARIVIÈRE. INSPECTOR.									
5·64	0·314	0·122	large.....	medium ..	ppt...	0·7	0·13	47421	Spirit vinegar.
5·58	0·300	0·094	"	" ..	"	0·8	0·15	47424	"

BULLETIN No. 235—VINEGAR NOT SOLD

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report (Is not an expression of opinion).
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF VANCOUVER—								
1911.								
Oct. 18	Vinegar ..	38219	Clark's Grocery, Carrall St., Vancouver.	1 qt..	15	B. C. Distillery Co., Vanc.	.....	Special Canadian Vinegar.
" 19	" ..	38220	B. C. Vinegar Works, Powell St., Vancouver	1 " .	25	Vendors.....	.....	Is guaranteed pure and free from all mineral acids.
DISTRICT OF VICTORIA—								
Nov. 13	Vinegar ..	47638	F. E. Plummer, Victoria.	1 qt..	15	B. C. Vinegar Works, Vanc.	.....	Sunset Brand. Pure vinegar.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MANITOBA—							
1911.							
Oct. 21	Vinegar.	47419	The White Star M'f'g. Co., Winnipeg.	1 qt..	Nil.	Unknown ..	.....
" 25	"	47422	Moffett & Douglas, Winnipeg.	"	10	"	Unknown .....

AS WINE, MALT OR CIDER VINEGARS.

Results of Analysis.									
Gms. per 100 cc.						Formic Acid.			
Acidity as acetic.	Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented vinegar.	Mgms. in 100 cc.	Parts per 1000 of total acid.	No. of Sample.	Remarks and opinion of the Chief Analyst.
J. F. POWER, INSPECTOR.									
4·41	0·184	0·008	none. ...	none.....	ppt...	trace.....	.....	38219	Spirit vinegar.
10·25	0·155	0·007	"	"	"	.. ..	.....	38220	" above vinegar strength.
D. O. SULLIVAN, INSPECTOR.									
5·04	0·362	0·028	none.	slight trace.	ppt...	.....	.... .	47638	Spirit vinegar.

Results of Analysis.											
Gms. per 100cc.					Phosphates Mgms. P_2O_5 per 100 cc.						
Acidity as acetic.	Solids.	Ash.	Soluble Ash.	Alkalinity of soluble ash cc. $\frac{N}{10}$ acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead acetate ppt.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
A. C. LARIVIERE, INSPECTOR.											
p.c.	p.c.	p.c.									
11·94	0·690	0·048	0·038	2·4	Trace..	2·8	Slight trace.	Slight trace.	None.	47419	Imitation malt vinegar. Above vinegar strength. Doubtful.
3·18	0·758	0·114	0·091	1·2	None...	Trace	Medium	Medium	Trace.	47422	Imitation malt vinegar. Doubtful.

APPENDIX L.

BULLETIN No. 236.—GROUND GINGER.

OTTAWA, March 8, 1912.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report upon 151 samples of ground ginger, purchased throughout Canada in October, 1911.

Ground ginger has been investigated and reported by this department as follows:—

—	Total Samples.	Percentages.		
		Genuine.	Adulterated	Doubtful.
Bulletin 48—1896	98	67	28	5
" 95—1904	10	60	40	0
" 137—1907	30	97	0	3
" 184—1909	150	65	21	14
" 236—1912	151	84	9	7

The results of previous work on ginger have been synopticised in Bulletin 184, from which the following is reprinted:—

'The usual recognized adulteration of ginger consists in the substitution of cheaper materials (flour, starch, &c.) or in the use of exhausted rhizomes, i.e., stock from which the valuable principles have been more or less completely removed by washing. The examinations which form the basis for reports above referred to, have regard primarily to the detection of adulteration as described. But each report contains an account of more or less investigatory work, undertaken in the desire to put on record such data regarding ginger as should, at some future time, enable us to recommend the adoption of a definition of ginger, based upon its physical and chemical constants, and comprehensive enough to warrant its being made legal, under Section 26 of the Adulteration Act.

'A definition of ginger recommended by the United States Food Standards Committee, is as follows:—Ginger is the washed and dried or decorticated and dried, rhizome of *Zingiber* Zingiber (L) Karst., and contains not less than forty-two (42) per cent of starch, not more than eight (8) per cent of crude fibre, not more than six (6) per cent of total ash, not more than one (1) per cent of lime, and not more than three (3) per cent of ash insoluble in hydrochloric acid.'

'Limed ginger, bleached ginger, is whole ginger, coated with carbonate of lime, and contains not more than ten (10) per cent of ash, not more than four (4) per cent of carbonate of lime, and conforms in other respects to the standard for ginger.'

The British Pharmacopœia describes ginger as 'The scraped and dried rhizome of Zingiber officinale, Roscoe'; and gives the physical characters of the rhizome; but does not mention ground ginger, nor attempt any enumeration of chemical

characters. (Edn. 1898). Squire's Companion (Edn. of 1908) gives the following tests for ginger:—The cells contain resin, (and) pyriform compressed starch grains 12 to 40 mcm. long, appearing linear when seen laterally, having the hilum at the smaller end; thin walled, polyzonal parenchymatous cells, and sometimes septate bast fibres with irregularly nodose extremities. When unbleached yields 3 to 4 per cent ash, and 5 per cent should not be exceeded. Not less than 1·5 per cent soluble ash. Extractive matter to cold water usually about 10 per cent and should not be less than 8·5 per cent; the extractive matter soluble in 90 per cent alcohol usually amounts to about 5 per cent and should not be materially below this figure.'

It is apparent, from these citations, that we have but a very vague and indefinite knowledge of ginger; and it may be well to synopticize the main points brought out by the research work reported in the bulletins from this laboratory.

Bulletin No. 48 contains photomicrographic reproductions of genuine and adulterated gingers, magnified 225 diameters, and seen under polarized light. The differences between ginger starch, and such starches as are commonly employed in adulteration of ginger, are well shown.

A synoptical table of published results in the chemical examination of ginger is furnished, and the following conclusion reached. 'An examination of these results shows that no single component of ginger is sufficiently constant in amount to make the identification of a sample as genuine possible by its means.'

Analytical numbers concerning 98 samples include moisture, cold water extractive, total ash; and in certain cases, petroleum ether and alcohol extractive, soluble ash, and alkalinity of ash.

Samples are only condemned as adulterated, in cases where foreign starch in amount exceeding 10 per cent is found.

Bulletin No. 95 reports only 10 samples of ground ginger; giving moisture, cold water extractive and results of microscopic examination. One sample is condemned as containing wheat starch. Three others are called in question as giving only 14·1, 15·3, and 14·9 per cent extractive to cold water. These probably contain exhausted ginger, since similar extraction of genuine samples afforded nearly or quite 20 per cent of extractive. But it would be safer to describe these samples as 'doubtfully genuine' than as adulterated.

The details for cold water extraction of ginger are given (pp. 24 and 25), and the analyst adds:—'I have not met with an authenticated sample of ginger which gave less than 19 per cent of extractive to cold water, when treated as described.'

Bulletin No. 137 reports upon 30 samples, of which 29 appear to be genuine, as judged by microscopic characters, and the cold water extractive, carried out by the process described above. Extraction amounts to above 20 per cent by weight on the dry ginger, in most samples, and in several reaches 24 per cent.

A consideration of all work recorded for ginger leads to the conclusion that microscopic examination and determination of cold water extractive are quite the most valuable tests that can be applied to the ground ginger of commerce. Determination of ash is rendered comparatively valueless on account of the variability in methods of preparing ginger for the market. The rhizome may be merely washed, or it may be scraped, or decorticated or limed; and ground ginger may result from the grinding of rhizomes prepared in any or all of these ways. The total ash of 64 samples of ginger, believed to be genuine, reported in Bulletin 48, varies from 3·60 per cent to 7·14 per cent.

The ash of ginger consists partly of alkaline carbonates, which are soluble in water; partly of earthy carbonates, sulphates, and phosphates, insoluble in water but easily dissolved by hydrochloric acid, and partly of silicates and sand, insoluble in

acid. Extraction of the ginger with water (which is one of the commonest forms of adulteration) has the effect of greatly reducing the amount of soluble ash, yielded by the sample, as shown in the following table:—

Number of Sample.	Effect of Water Extraction of Ginger upon the amount and character of the ash.					
	Before Extraction.			After Extraction.		
	Total.	Water Soluble.	Ratio.	Total.	Water Soluble.	Ratio.
37584	5·42	2·18	0·40	3·14	0·65	0·21
37587	4·65	1·98	0·42	2·25	0·30	0·13
39458	4·59	2·38	0·52	1·38	0·24	0·18
39464	3·63	1·86	0·51	0·98	0·15	0·15

A study of these results shows that the total ash is much reduced by previous extraction, as might be expected; and nearly 70 per cent of the diminution in amount is due to a reduction in water soluble ash.

Number of Sample.	Effect of Water Extraction of Ginger upon the amount and character of the ash.		
	Total ash reduced.	Soluble ash reduced.	Ratio p.c.
37584	2·28	1·53	69
37587	2·40	1·68	70
39458	3·21	2·14	67
39464	2·65	1·71	65

The samples of ginger upon which this work was done appear to be genuine, as evidenced by the microscopic examination, the cold water extractive, and other characters.

The presence of foreign starches or of flour in ground ginger will naturally reduce the total ash, since the normal ash of flour is less than one-half of one per cent, and that of starch practically nil. The ratio of soluble to total ash will be but little affected by addition of starch to a normal ginger.

In the absence of legal recognition of the value of this ratio in discriminating between normal and exhausted ginger, I am unable to make use of it in judging the genuineness of the samples now reported; but I have noted all cases where the ratio falls beyond the limits 0·40 to 0·70, as '*abnormal.*' When the total ash exceeds 6 per cent I have noted 'ash high'; when below 3 per cent I have noted 'ash low.' These terms cannot be regarded as having legal value in establishing the character of the article.

Of course the amount of extractive to cold water will be affected by the method of carrying out the extraction. This is described in Bulletin No. 95, p. 24, as it was employed by me in the work recorded in Bulletins 95 and 137. It involved the use of a mechanical shaker and centrifuge, and genuine gingers yielded about 20 per cent of extractive. The cold water extraction, as now reported, has been made by treating 5 grammes of the sample with 250 cc. of water, in a glass flask, which is shaken by hand at intervals of half an hour during eight hours; allowed to stand over night

when an aliquot part by volume of the solution is evaporated in platinum to constant weight. This method is less effective in exhausting the ginger, but has the advantage of being available in laboratories not equipped with the mechanical devices required for carrying out the first method described. The normal extractive, by this method, appears to be about 15 or 16 per cent of the weight of the ginger (dry).

It is interesting to note that the low extractive recorded in the accompanying table, for certain samples, is usually correlated to the presence of foreign starchy matters. Where a low extractive is not explained by presence of foreign starch, the only explanation available would seem to be the previous extraction of the rhizome.

The requirements of the British Pharmacopœia in the matter of extractive would appear to be entirely too low.

I have not seen any investigatory work on ginger since 1909, which materially alters the conclusions above recorded.

The cold water extractive in the samples now reported, has been made by the same method used in Bulletin 184, and normal samples should yield about 16 per cent of extractive, calculated upon the dry material.

Six samples of the present collection are found to contain foreign starch, and are therefore adulterated under the Act (Sec. 8a).

Sixteen other samples contain less than 14 per cent of extractive to cold water. These must be judged to contain more or less of exhausted ginger, if we apply the results of investigatory work recorded on the preceding pages. In the absence of a legal standard for cold water extractive, I am unable to pronounce them adulterated under the terms of the Act; but they cannot be regarded as of less than doubtful quality. Eight of these samples yield less than 12 per cent to cold water, thereby indicating a very considerable admixture of exhausted rhizomes.

I beg to recommend publication of this report as Bulletin No. 236.

I have the honour to be, sir,

Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion.)
DISTRICT OF NOVA SCOTIA—								
1911.								
Oct. 16	Ground Ginger.	46701	D. C. Mulhall, Liverpool, N.S.	¼ lb.	7	Nat. Drug & Chem. Co.	Manufacturers.	"Sovereign" Brand.
" 17	" ..	46702	Hendry Ltd., Liverpool, N.S.	¼ " .	8	W. H. Schwartz & Sons, Halifax, N.S.	" ..	Labelled Pure.
" 25	" ..	46703	Nat. Drug & Chem. Co., Halifax, N.S.	¼ " .	8	Vendors	.....	"Sovereign" Brand.
" 25	" ..	46704	J. Frank Crowe Co., Ltd., Halifax. N.S.	¼ " .	7	W. H. Schwartz & Sons, Halifax.	Manufacturers.	Peerless Brand Pure.
" 25	" .	46705	Bauld Bros., Ltd., Halifax, N.S.	¼ " .	6	" ..	" ..	"
" 26	" ..	46706	Jno. P. Mott & Co., Halifax, N.S.	¼ " .	nil.	Vendors	.....	Labelled Pure.
" 27	" ..	46707	Wentzells Ltd., Halifax, N.S.	¼ " .	7	Jno. P. Mott & Co., Halifax.	Manufacturers.	"
Nov. 14	" ..	46708	B. H. Dodge, Kentville, N.S.	¼ " .	8	G. E. Barbour, St. John, N.B.	" ..	"Acorn" Brand.
" 17	" ..	46709	B. O. Bishop Dartmouth, N.S.	¼ "	8	Jno. P. Mott & Co., Halifax.	" ..	Labelled Pure.
" 20	" ..	46710	W. H. Schwartz & Sons, Halifax, N.S.	¼ " .	6	Vendors	.....	"
DISTRICT OF PRINCE EDWARD ISLAND—								
Oct, 16	Ground Ginger.	46126	John McKenna, Charlottetown, P.E.I.	¼ lb..	10	W. H. Schwartz & Sons, Halifax.	.....	.....
" 17	" ..	46127	E. Toombs, Charlottetown, P.E.I.	¼ " .	10	.....	N. Rattenbury, Ch'town, P.E.I	.....
" 18	" ..	46128	M. Duffy, Charlottetown, P.E.I.	¼ " .	10	Unknown.....	.....	.....
" 18	" ..	46129	Stewart & Son, Charlottetown, P.E.I.	¾ " .	30	Maritime Spice & Coffee Mills, St. John, N.B	.....	.....
" 19	" .	46130	Coffin & Co., Charlottetown, P.E.I.	¼ " .	18	G. E. Barbour, St. John, N.B.	.....	.....
" 19	" ..	46131	L. A. Hazard, Charlottetown. P.E.I.	¼ " .	10	McCready & Sons, Ltd., St. John, N.B	.....	.....
" 20	" ..	46132	J. A. Hynes, Kensington, P.E.I.	¼ " .	10	Crown Spice Mills.	.....	.....

GROUND GINGER.

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
Ash.			Moisture.	Cold water Extractive.				
Total.	Water soluble.	Insoluble in water.		Normal.	Calculated to dry Ginger.			
R. J. WAUGH, INSPECTOR.								
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
3·54	2·34	1·20	9·95	16·30	18·10	Ginger Starch and tissues	46701	Genuine.
5·76	2·44	3·32	9·17	15·10	16·62	" ..	46702	"
3·62	2·42	1·20	10·02	15·60	17·34	" ..	46703	"
4·74	2·50	2·24	10·00	14·20	15·77	" ..	46704	"
5·12	1·86	3·26	10·35	17·50	19·51	" ..	46705	"
3·92	1·90	2·02	9·35	14·00	15·44	" ..	46706	"
3·54	2·80	0·74	9·02	14·10	15·49	" ..	46707	"
4·20	2·26	1·94	9·12	15·70	17·27	" ..	46708	"
6·00	3·10	2·90	10·05	14·60	16·23	" ..	46709	"
4·78	2·28	2·50	10·27	14·30	15·93	" ..	46710	
WM. A. WEEKS, INSPECTOR.								
5·60	2·92	2·68	9·88	15·60	17·19	Ginger Starch and tissues	46126	Genuine.
7·26	3·46	3·80	9·92	13·85	15·26	" ..	46127	" Ash high.
1·82	1·42	0·40	9·31	10·95	12·07	Ginger Starch and tissues with maize starch.	46128	Adulterated.
3·42	2·44	0·98	10·54	17·45	19·49	Ginger Starch and tissues	46129	Genuine.
4·10	2·16	1·94	9·46	16·60	18·33	" ..	46130	"
3·98	2·00	1·98	8·00	17·20	18·69	" ..	46131	"
8·84	4·12	4·72	9·00	15·90	17·47	" ..	46132	" Ash high

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of Opinion.)
								DISTRICT OF PRINCE EDWARD ISLAND—
1911.								
Oct. 21	Ground Ginger.	46133	D. McKenzie & Co., Kensington, P.E.I.	¼ lb.	10	G. E. Barbour & Co., St. John, N.B.	.....	.....
" 21	" ..	46134	James Kennedy, Kensington, P.E.I.	¼ "	10	Dearborn & Co., St. John, N.B.	.....	.....
" 21	" ..	46135	McLellan & Co., Ltd., Summerside, P.E.I.	¼ "	10	Nat. Drug Co., Halifax, N.S.	.....	.....
								DISTRICT OF NEW BRUNSWICK—
Oct. 12	Ground Ginger.	45560	Dearborn & Co., St. John, N.B.	¼ lb.	10	Vendors	.....	.....
" 12	" .	45561	Geo. E. Barbour, Co., Ltd., St. John, N.B.	¼ "	10	"	.....	.....
" 20	" .	45562	H.S. Francis, St. John, N.B.	¼ "	10	C H. Cochrane, Ottawa, Ont.	.....	.....
" 20	" .	45563	M. E. Grass, St. John, N.B.	¼ "	10	White Swan Co., Ltd., Toronto.	.....	.....
Nov. 3	"	45564	H. E. Hill, St. Stephen, N.B,	¼ "	10	Wright Crossley & Co., Liverpool, Eng.	.....	.....
" 7	" .	45565	The Yerxa Grocery Co., Fredericton, N.B.	¼ "	10	Dearborn&Co., St. John, N.B.	.....	.....
" 10	" .	45566	H. N. Dickinson, Perth, N.B.	¼ "	10	Geo. E. Barbour, Co., Ltd., St. John, N.B.	.....	.....
" 14	" .	45567	Sussex Mercantile Co., Ltd., Sussex, N.B.	¼ "	10	C. H. Cochrane & Co., Ottawa.	.....	.....
" 16	" .	45568	S. A. Russell, Newcastle, N.B.	¼ "	10	.....	H. W. Cole, Ltd., St. John, N.B.	Thistle Brand..
" 17	" .	45569	S. Holdengraber, Bathurst, N.B.	¼ "	10	Unkown.. ...	Unknown...	.....
								DISTRICT OF QUEBEC—
Oct. 11	Ground Ginger.	37318	J. B. Giroux, 385 Rue St. Joseph, Quebec.	¼ lb.	30	Carton Signy..	Mfrs.	.....
" 12	" .	37319	Cantin & Frere, 271 Rue St. Joseph, Que.	¼ "	5	Gillett & Co., Toronto.	Unknown...	.....

GROUND GINGER.

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Ash.			Moisture.	Cold Water Extractive.				
Total.	Water Soluble.	Insoluble in Water.		Normal.	Calculated to dry ginger.			
WM. A. WEEKS, INSPECTOR—*Concluded.*								
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
4·62	2·28	2·34	9·25	15·70	17·35	Ginger Starch and tissues	46133	Genuine
4·60	1·98	2·62	8·67	13·20	14·46	" ..	46134	Extractive low.
4·58	1·90	2·68	8·90	11·17	12·57	" ..	46135	"
J. C. FERGUSION, INSPECTOR.								
3·22	2·24	0·98	8·97	17·10	18·78	Ginger, starch and tissues	45560	Genuine.
3·70	2·46	1·24	8·80	18·20	19·95	" ..	45561	"
4·24	2·16	2·08	9·15	16·10	17·72	" ..	45562	"
3·60	2·34	1·26	8·50	16·30	17·81	" ..	45563	"
6·48	3·40	3·08	8·72	12·50	13·69	" ..	45564	Extractive low.
4·84	2·20	2·64	9·75	13·02	14·42	" ..	45565	"
5·74	3·00	2·74	10·75	17·20	19·27	" ..	45566	Genuine.
4·40	2·20	2·20	9·97	15·70	17·43	" ..	45567	"
5·06	3·46	2·60	9·72	15·50	17·16	" ..	45568	"
3·24	2·12	1·12	10·40	15·40	17·18	" ..	45569	"
F. X. W. E. BELAND, INSPECTOR.								
3·58	2·60	0·98	9 75	15·50	17·17	Ginger, starch and tissues	37318	Genuine.
3·40	1·50	1·90	10·00	11·55	12·83	" ..	37319	Extractive low. Ash low

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion).
								DISTRICT OF QUEBEC—
1911.								
Oct. 13	Ground Ginger.	37320	G. Gingras, 268 Rue du Roi, Q.	¼ lb.	5	J. J. Duffy, Montreal.	J. B. Renaud, Que.	
" 13	"	37321	"	¼ "	10	Unknown	"	
" 16	"	37322	J. E. Gregoire, 128 Rue du Pont, Que.	¼ "	8	Pure Gold Co., Toronto.	Mfrs.	
" 17	"	37323	W. Cantin, 133 RueduPont, Q.	¼ "	10	Unknown.	Unknown.	
" 19	"	37324	A. Pichette, 176 Rue D'Orchester, Que.	¼ "	10	J. J. Duffy, Montreal.	N. Turcot & Cie.	
" 19	"	37325	Elzear Gagnon, 138 Rue D'Orchester, Que.	¼ "	5	Marcothe & Leblanc.	Bedard & Frere.	
" 19	"	37326	Jd. Marier, 136 Rue D'Orchester, Que.	¼ "	5	S. H. Ewing & Son, Montreal.	Turcotte & Frere.	
" 20	"	37327	W. Pamplon, 120 Rue D'Orchester, Que.	¼ "	6	Unknown.	N. Turcotte & Cie.	
								DISTRICT OF ST. HYACINTHE—
Oct. 10	Ground ginger.	1171	P. Larochelle, Farnham, P.Q.	¼ lb.	10		S. H. Ewing & Son, Montreal.	
" 26	"	1172	Nelson Mitchell & Co., Granby.	¼ "	9	Unknown.	Unknown	
Nov. 6	"	1173	L. H. Oliver, Sherbrooke.	¼ "	10	The F. F. Dalley Co., Ltd., Hamilton		Labelled pure ground ginger.
" 8	"	1174	M. J. Smith, Megantic.	¼ "	10		W. Galbraith & Co., Montreal.	
" 8	"	1175	D. P. Matheson &Co., Megantic	¼ "	10	Pure Food Co., Ltd., Toronto.		
" 9	"	1176	D. W. Stenson, Sherbrooke.	¼ "	12	PureGold Mfg. Co., Ltd., Toronto.		
" 9	"	1177	J. W. Paige, Coaticook.	¼ "	8	White Swan Spices and Cereals Ltd., Toronto.		
" 22	"	1178	J. O. Peloquin, Sorel.	¼ "	10	Unknown	Unknown.	
" 23	"	1179	J. Chiquet, St. Hyacinthe.	¼ "	10			
" 23	"	1180	J. B. J. Phaneuf, St. Hyacinthe.	¼ "	10		Eugene Benoit, St. Hyacinthe	
" 21	"	1190	J. O. I. Dufrese, Nicolet.	¼ "	10		LacailleGendreau & Cie, Montreal.	

GROUND GINGER.

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Ash.			Moisture.	Cold Water Extractive.				
Total.	Water soluble.	Insoluble in water.		Normal.	Calculated to dry ginger.			
F. X. W. E. BELAND, INSPECTOR—*Concluded.*								
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
2·90	1·49	1·41	10·12	15·20	16·90	Ginger starch and tissues	37320	Genuine. Ash low.
4·94	2·40	2·54	9·72	14·70	16·28	" ..	37321	"
5·18	2·48	2·70	10·12	14·70	16·36	" ..	37322	"
2·67	1·39	1·28	9·70	10·86	12·02	Ginger, starch and tissues, with foreign starch, (probably wheat).	37323	Adulterated.
3·04	1·56	1·48	9·92	13·47	14·95	Ginger, starch and tissues	37324	Extractive low.
6·59	1·20	5·39	9·37	14·10	15·55	" ..	37325	Soluble ash low.
3·1	1·78	1·36	10·75	14·00	15·69	" ..	37326	Genuine.
2·82	1·14	1·68	10·90	9·70	10·88	" ..	37327	Extractive low. Ash low.
J. C. ROULEAU, INSPECTOR.								
4·10	2·62	1·48	8·10	17·40	18·93	Ginger starch and tissues.	1171	Genuine.
3·66	2·55	1·11	9·40	16·20	17·88	" " ..	1172	"
3·58	2·18	1·40	8·28	15·50	16·78	" " ..	1173	"
3·26	1·80	1·46	8·87	14·10	15·47	" " ..	1174	"
4·10	1·80	2·30	10·90	15·20	17·06	" " ..	1175	"
3·60	2·14	1·46	9·37	16·90	18·64	" " ..	1176	"
2·60	0·86	1·74	8·25	15·20	16·56	" " ..	1177	Ash low
3·40	1·60	1·80	8·12	15·40	16·76	" " ..	1178	Genuine
4·44	3·04	1·40	9·42	18·50	20·42	" " ..	1179	"
3·50	1·36	2·14	9·57	17·20	19·02	" " ..	1180	"
3·14	1·40	1·74	8·28	9·80	10·68	Ginger starch and tissues and maize starch.	1190	Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
								DISTRICT OF MONTREAL—
1911.								
Oct. 19	Ground ginger.	40931	L. L. Desaulnier, 437 Notre Dame St. West, Montreal.	¼ lb.	10	Unknown		
" 19	"	40932	J. A. Villeneuve, 185 Ottawa St., Montreal.	¼ "	10	"		
" 20	"	40933	J. Deneau, 53 Jurors St., Montreal.	¼ "	10	S. H. Ewing & Son, Montreal.		
" 20	"	40934	J. L. Steele, 188 Dorchester St., Montreal.	¼ "	10			
" 20	"	40935	O. Murtel, 166 Dorchester St., Montreal.	¼ "	10	J. V. Boudrais, Montreal.		
" 20	"	40936	B. Lipson, 309 St. George St., Montreal.	¼ "	10	S. H. Ewing & Son, Montreal.		
" 23	"	40937	J. S. Belisle, 129 Wellington St., Montreal.	¼ "	10			Sold as pure.
" 24	"	40938	Mde. N. Fournelle, St. Agathe de Monts, P.Q.	¼ "	10		Watt & Godin, Montreal.	
" 27	"	40939	E. Dufour, Joliette, P.Q.	¼ "	10			
" 27	"	40940	J. A. Lavallee, Joliette, P.Q.	¼ "	10			
								DISTRICT OF OTTAWA—
Oct. 10	Ground ginger.	49041	J. H. Edwards, Carleton Place	¼ lb.	10	Gorman Eckert & Co., Ltd., London, Ont.		
" 13	"	49042	Jas. L. P. Sanders, Kemptville.	¼ "	10	C. H. Cochrane & Co., Ottawa.		Pure Jamaica ginger.
" 16	"	49043	Geo. Illingworth, Almonte.	¼ "	10		Robertson, Nicolle & Co., Smith Falls.	
" 20	"	49044	A. F. Dey & Co., Finch.	¼ "	8	Unknown	Unknown	
" 20	"	49045	Fulton Bros., Chesterville.	¼ "	8		Birk's Corner, Montreal.	
" 25	"	49046	McDonald Bros., Ottawa.	¼ "	10	C. H. Cochrane & Co., Ottawa.		

GROUND GINGER.

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Ash.			Moisture.	Cold Water Extractive.				
Total.	Water soluble.	Insoluble water.		Normal.	Calculated to dry ginger.			
J. J. COSTIGAN, INSPECTOR.								
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
3·42	2·46	0·96	8·87	15·50	17·00	Ginger starch and tissues.	40931	Genuine.
1·96	1·03	0·93	9·00	17·00	18·68	Ginger starch and tissues, with a little maize starch.	40932	Ash low.
4·80	2·90	1·90	8·57	15·50	16·95	Ginger starch and tissues.	40933	Genuine.
5·96	0·92	5·04	8·87	10·67	11·70	Ginger starch and tissues and maize starch.	40934	Adulterated.
3·12	1·80	1·32	8·92	14·50	15·92	Ginger starch and tissues.	40935	Genuine.
3·44	1·80	1·64	8·90	15·90	17·45	" " ..	40936	"
3·66	1·84	1·82	8·82	18·80	20·61	" " ..	40937	"
12·64	6·08	6·56	8·79	16·80	18·41	" " ..	40938	Ash very high.
3·61	1·59	2·02	8·00	10·90	11·83	" " ..	40939	Extractive low.
4·56	1·96	2·60	8·85	14·10	15·46	" " ..	40940	Genuine.
J. A. RICKEY, INSPECTOR.								
5·04	2·86	2·18	10·27	17·30	19·28	Ginger starch and tissues.	49041	Genuine.
3·64	2·22	1·42	8·87	17·30	18·98	" " ..	49042	"
3·30	1·42	1·88	10·12	10·95	12·18	" " ..	49043	Extractive low. Ash low.
3·42	2·30	1·12	9·47	15·20	16·97	" " ..	49044	Genuine.
4·10	2·88	1·22	9·52	17·50	19·34	" " ..	49045	"
3·76	2·10	1·66	9·67	15·00	16·60	" " ..	49046	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cts.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion).
								DISTRICT OF OTTAWA—
1911								
Oct. 25	Ground Ginger.	49047	A. Moreland, Bank st., Ottawa.	¼ lb.	10	C. H. Cochrane & Co., Ottawa.		
" 25	"	49048	A. E. Rea & Co., Ltd., Ottawa.	¼ "	10	Heron & Leblanc, Montreal.		
" 25	"	49049	P. Lamoureux & Cie., Dalhousie st., Ottawa.	¼ "	10	Unknown	Provost & Allard, Ottawa.	
" 26	"	49050	F. A. Scott & Son., Wellington st., Ottawa	¼ "	10	McLarens, Ltd., Toronto.		
								DISTRICT OF KINGSTON—
Nov. 1	Ground ginger.	48574	C. Saunders, Kingston.	¼ lb.	10	Gorman Eckert, London.		
" 1	"	48575	Anderson Bros., Kingston.	¼ "	10	Unknown		
" 1	"	48576	D. Couper, Kingston.	¼ "	10	Pure Gold Co., Toronto.		
" 1	"	48577	Kelley Bros., Kingston.	¼ "	15	"		
" 2	"	48578	D. B. Gage, Kingston.	¼ "	10	Unknown		
" 2	"	48579	J. T. Morris, Kingston.	¼ "	7	Dalton Bros., Toronto.		
" 2	"	48580	G. A. Valleau, Kingston.	¼ "	10		Robertson Nicolle Co., Kingston.	
" 2	"	48581	J. McCulla, Kingston.	¼ "	10	Pure Gold Co., Toronto.		
" 2	"	48582	J. R. B. Gage, Kingston.	¼ "	10		Fewick Hendry Co., Kingston.	
" 2	"	48583	J. Redden, Kingston.	¼ "	10	Todhunter & Mitchell, Toronto.		
								DISTRICT OF TORONTO—
Oct. 16	Ground ginger.	47385	J. & R. Williams, Murray St., Hamilton.	¾ lb.	10		R. Simpson & Co. Hamilton.	
" 18	"	47386	R. J. Hewson, Main St., Hamilton.	¼ "	10		Unknown	
" 20	"	47387	M. Weis, 341 Parliament St. Toronto.	¼ "	10		"	

GROUND GINGER.

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Ash.			Moisture.	Cold water Extractive.				
Total.	Water soluble.	Insoluble in water.		Normal.	Calculated to dry ginger.			
J. A. RICKEY, INSPECTOR—*Concluded.*								
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
4·32	2·56	1·76	9·82	15·20	16·87	Ginger starch and tissues	49047	Genuine.
2·60	1·28	1·32	9·20	13·50	14·86	" " ..	49048	Extractive and ash low.
5·00	2·80	2·20	9·50	15·60	17·23	" " ..	49049	Genuine.
4·10	2·10	2·00	8·72	16·00	17·52	" " ..	49050	"
JAS. HOGAN, INSPECTOR.								
3·56	2·44	1·12	9·12	17·30	19·03	Ginger starch and tissues.	48574	Genuine.
4·68	2·40	2·28	9·27	15·70	17·30	" " ..	48575	"
4·26	2·10	2·16	10·12	16·50	18·39	" " ..	48576	"
3·80	2·50	1·30	9·67	16·40	18·15	" " ..	48577	"
4·94	3·52	1·42	9·27	16·60	18·28	" " ..	48578	"
4·40	1·96	2·44	9·57	15·80	17·47	" " ..	48579	"
2·34	1·10	1·24	9·80	10·60	11·75	" " ..	48580	Extractive low. Ash low.
5·66	2·96	2·70	9·50	14·10	15·55	" " ..	48581	Genuine.
3·60	2·05	1·55	9·85	15·90	17·63	" " ..	48582	"
3·48	2·00	1·48	10·90	15·50	17·39	" " ..	48583	"
H. J. DAGER, INSPECTOR.								
2·06	1·17	0·89	9·60	9·70	10·73	Ginger starch and tissues and maize starch.	47385	Adulterated.
4·76	1·60	3·16	9·87	12·02	13·33	Ginger starch and tissues	47386	Extractive low.
2·30	1·21	1·09	9·60	10·20	11·29	Ginger starch and tissues and maize starch.	47387	Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion.)
								DISTRICT OF TORONTO—
1911.								
Oct. 20	Ground Ginger.	47388	W. J. Street, 291½ Parliament St. Toronto.	¼ lb.	8	.....	The White Swan Cereals Co., Ltd., Toronto.	.....
" 23	" ..	47389	M. Robinson & Son, Orangeville.	¼ "	10	.....	Unknown ..	.....
" 24	" ..	47390	Lloyd Bros., Owen Sound.	¼ "	10	.....	" ..	.....
" 26	" ..	47391	Secord Bros., Meaford.	¼ "	10	.....	McLauchlan Sons & Co., OwenSound	.....
" 26	" ..	47392	J. Mitchell, Collingwood.	¼ "	10	.....	YoungWindfield, Ltd. Hamilton.	.....
Nov. 2	" ..	47393	R. J. Goldring, Whitby.	¼ "	10	.....	Eby Blain & Co., Ltd., Toronto.	.....
" 2	" ..	47394	J. D. Caroeth, Oshawa.	¼ "	10	.....	J. M. Lowes & Co., Toronto.	.....
								DISTRICT OF WINDSOR—
Oct. 17	Ground ginger.	47817	Orendorf Bros., Ridgetown.	3 pgs.	30	I. X. L. Spice & Coffee Co., London.	.....	Labelled 'Sweetheart pure ginger.
" 18	" ..	47826	B. C. Watson, Leamington.	6 oz.	15	Hamilton Spice & Coffee Co., Hamilton.	.....	.....
" 18	" ..	47827	J. Vamdour & Son, Leamington.	6 "	15	Unknown.....	.....	.....
18	" ..	47830	B. & W. McIntyre, Leamington.	6 "	15	"	.....	.....
" 18	" ..	47832	Geo. M. Sawyer, Leamington.	6 "	15	"	.....	.....
" 18	" ..	47836	Robinson Bros., Leamington.	6 "	15	Todhunter & Mitchell, Toronto.	.....	.....
" 19	" ..	47840	A. Raines, Essex	6 "	15	McLaren's Hamilton.	.....	.....
" 19	" ..	47842	O. H. Bricker, Essex	6 "	15	F. F. Dalley, Hamilton.	.....	.....
" 19	" ..	47844	A. Detwiler, Essex.	4 "	10	.....	J. F. Smyth & Co., Windsor.	.....
" 19	..	47846	A. H. Scarff, Essex.	6 "	15	Todhunter & Mitchell, Toronto.	.....	.....

GROUND GINGER

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
Ash.			Moisture.	Cold water Extractive.				
Total.	Water soluble.	Insoluble in water.		Normal.	Calculated to dry Ginger.			
H. J. DAGER, INSPECTOR—*Concluded.*								
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
3·62	2·30	1·32	9·50	14·60	16·13	Ginger starch and tissues	47388	Genuine.
3·54	1·60	1·94	9·50	10·40	11·49	" " ..	47389	Extractive low.
3·24	2·26	0·98	9·17	17·50	19·28	" " ..	47390	Genuine.
3·56	1·46	2·10	9·40	9·45	10·43	" " ..	47391	Extractive low.
5·00	2·20	2·80	9·52	15·00	16·58	" " ..	47392	Genuine.
3·90	2·00	1·90	9·75	13·87	15·35	" " ..	47393	"
5·56	2·76	2·80	8·97	15·00	16·47	" " ..	47394	"
JNO. TALBOT, INSPECTOR.								
6·04	3·24	2·80	10·55	17·00	19·00	Ginger starch and tissues	47817	Genuine.
2·66	0·90	1·76	8·55	16·70	18·25	" " ..	47826	Genuine. Ash low.
5·08	2·50	2·58	9·40	15·70	17·33	" " ..	47827	"
4·32	2·88	1·44	9·25	16·50	18·18	" " ..	47830	"
4·53	2·27	2·36	9·60	14·70	16·26	" " ..	47832	"
4·14	3·54	0·60	8·80	17·20	18·85	" " ..	47836	"
4·00	2·56	1·44	9·62	15·20	16·81	" " ..	47840	"
4·70	3·30	1·40	9·40	14·00	15·45	" " ..	47842	"
5·20	2·00	3·20	9·65	14·20	15·71	" " .	47844	"
3·50	2·08	1·42	9·65	17·30	19·14	" " ..	47846	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion).
								DISTRICT OF MANITOBA—
1911.								
Oct. 23	Ground Ginger.	47438	Blue Ribbon, Ltd., Winnipeg.	¼ lb.	10	Vendors	.....	Blue Ribbon "Brand."
" 23	"	47439	Campbell Bros. Wilson, Winnipeg.	¼ "	nil.	"	.....	Royal Shield "
" 23	"	47440	The Gold Standard Mfg. Co., Winnipeg.	¼ "	"	"	.....	Gold Standard "
" 24	"	47441	The White Star Mfg. Co., Winnipeg.	¼ "	"	"	.....	White Star "
" 24	"	47442	The Dyson Co., Winnipeg.	¼ "	"	"	.....	Red Cross "
" 25	"	47443	Mikush & Bierbaumer, Winnipeg.	½ "	10	The Dyson Co., Winnipeg.	Unknown	" "
" 25	"	47444	Moffett & Douglas, Winnipeg	½ "	10	The Pure Gold Mfg. Co., Ltd., Toronto	"	Regal " (Pure Ginger.)
" 25	"	47445	Western Mercantile Co., Winnipeg.	½ "	10	Blue Ribbon Co., Winnipeg.	.....	Blue Ribbon "Brand."
" 25	"	47446	A. J. Kemball, Winnipeg.	½ "	15	Gorman Eckert & Co., Ltd., London and Winnipeg.	.....	Forest City "
" 26	"	47447	W. H. Wright, Winnipeg.	½ "	20	Foley Bros., Larson Co., Winnipeg.	Unknown	Premier " (Pure.)
								DISTRICT OF CALGARY—
Nov. 8	Ground ginger.	44041	LePage Bros., Medicine Hat.	3 pgs.	30	Gold Standard Mfg. Co., Winnipeg.	.....	.....
" 8	"	44042	L. B. Cochran, Medicine Hat.	¼ lb	10	"	.....	.....
" 9	"	44043	H. W. Ireland & Co., Medicine Hat.	3 pgs.	30	"	.....	.....
" 9	"	44044	Spencer & Todd, Medicine Hat.	3 "	30	Balfour, Smye & Co., Hamilton.	.....	.....
" 9	"	44045	Hewitt & Armstrong, Medicine Hat.	¼ lb	10	Medicine Hat Grocery Co., Medicine Hat	.....	.....
" 15	"	44046	L. T. Mewburn & Co., Ltd., Calgary.	3 tins.	20	Imperial Cocoa and Spice Co., Hamilton.	.....	.....
" 15	"	44047	Georgeson & Co., Ltd., Calgary.	3 "	25	Vendors	.....	.....

GROUND GINGER.

Results of Analysis.								
Ash.				Cold water Extractive.				
Total.	Water soluble.	Insoluble in water.	Moisture.	Normal.	Calculated to dry Ginger.	Microscopical Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
A. C. LARIVIERE, INSPECTOR.								
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
4·00	2·68	1·32	8·37	15·40	16·80	Ginger, Starch and tissues	47438	Genuine.
7·40	2·44	4·96	1·25	17·00	17·31	" ..	47439	Genuine, but very dry. Ash high.
4·68	1·94	2·74	8·37	14·60	15·93	" ..	47440	Genuine.
3·44	2·34	1·10	7·80	18·40	19·95	" ..	47441	"
2·20	1·40	0·80	7·15	17·70	19·06	" ..	47442	" Ash low.
3·80	1·80	2·00	5·70	14·80	15·70	" ..	47443	"
3·68	2·40	1·28	8·80	17·50	19·18	" ..	47444	"
3·90	2·50	1·40	8·27	17·70	19·20	" ..	47445	"
3·64	1·84	1·80	9·00	14·20	15·60	" ..	47446	"
3·30	1·80	1·50	8·72	15·80	17·30	" ..	47447	"
R. W. FLETCHER, INSPECTOR.								
5·88	1·96	3·92	9·57	14·60	16·14	Ginger starch and tissues.	44041	Genuine.
5·06	2·34	2·72	9·30	15·10	16·15	" " ..	44042	"
4·46	1·88	2·58	9·75	14·00	15·51	" " ..	44043	"
5·17	2·21	2·96	10·75	13·20	14·77	" " ..	44044	Extractive low.
4·28	1·90	2·38	9·25	14·30	15·70	" " ..	44045	Genuine.
5·40	4·20	1·20	8·75	16·90	18·52	" " ..	44046	"
5·30	2·00	3·30	8·75	14·20	15·56	" " ..	44047	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report (Is not an expression of opinion).
								DISTRICT OF CALGARY—
1911.								
Oct. 15	Ground Ginger.	44048	G. F. and J. Galt, Calgary.	3 tins.	30	Blue Ribbon Mfg. Co., Ltd., Winnipeg.	.....	.....
" 15	" ..	44049	Campbell, Wilson & Horne, Calgary.	3 " .	30	Campbell Wilson, Ltd., Winnipeg.	.....	.....
" 15	" ..	44050	Georgeson & Co., Ltd., Calgary.	3 " .	30	Vendors	.....	.....
								DISTRICT OF NELSON—
Oct. 19	Ground ginger.	48427	Crow's Nest Trading Co., Fernie.	¼ lb .	10	Dalton Bros., Toronto.	.....	.....
" 19	" ..	48428	" ..	¼ " .	10	White Star Mfg. Co., Winnipeg.	.....	.....
" 19	" ..	48435	Trites Wood Co., Fernie.	¼ " .	10	Gold Standard Mfg. Co., Winnipeg.	.....	.....
" 19	" ..	48439	Fernie Co-op. Store, Fernie.	¼ " .	5	W. Braid, Vancouver.	.....	.....
" 19	" ..	48440	" ..	¼ "	10	Georgeson & Co., Calgary.	.....	.....
" 27	" ..	48450	W. R. Braden & Son, Rossland.	¼ " .	10	Kelly, Douglas & Co., Vancouver.	.....	.....
" 27	" ..	48452	Union Co-op. Assn., Rossland	¼ " .	10	Georgeson & Co., Calgary.	.....	.....
" 27	" ..	48463	Hunter Bros., Rossland.	1 tin.	15	Empress Mfg. Co., Vancouver.	.....	.....
" 27	" ..	48464	" ..	¼ .	5	.....	.....	.....
" 27	" ..	48481	A. S. Horswill, Nelson.	¼ " .	10	Oriental Mills, Vancouver.	.....	.....
								DISTRICT OF VANCOUVER—
Oct. 27	Ground Ginger.	38255	London Grocery Co., City Branch, Vancouver.	¼ lb.	10	.....	Kelly Douglas, Vancouver.	.....
" 27	"	38256	Walford & Roney Granville St., Vancouver.	¼ " .	10	Empress M'f'g. Co., Vancouver.	.....	.....
" 27	"	38257	J. F. May, Granville St., Vancouver.	¼ " .	15	W. Braid & Co. Vancouver.	.....	Guaranteed absolutely pure.
" 27	"	38258	City Grocery, Davie St., Vancouver.	¼ " .	10	.	.....	.....

GROUND GINGER.

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Ash.			Moisture.	Cold Water Extractive.				
Total.	Water soluble.	Insoluble in water.		Normal.	Calculated to dry ginger.			
R. W. FLETCHER, INSPECTOR—*Concluded.*								
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
4·02	2·90	1·12	9·62	17·10	18·87	Ginger starch and tissues	44048	Genuine.
7·98	2·80	5·18	10·17	14·60	16·28	" " ..	44049	" Ash high.
5·52	2·04	3·48	9·15	14·00	15·40	" " ..	44050	"
THOS. PARKER, INSPECTOR.								
2·26	1·34	0 92	10·25	17·00	18·94	Ginger starch and tissues.	48427	Genuine. Ash low.
7·70	2·60	5·10	9·75	16·00	17·12	" " ..	48428	" Ash high.
7·14	2·66	4·48	8·77	14·80	16·22	" " .	48435	" "
6·68	3·74	2·94	10·50	16·00	17·87	" " ..	48439	"
5·44	2·94	2·50	10·10	15 40	17·13	" " ..	48440	"
4 58	2·20	2·38	7·00	15·80	16·98	" " ..	48450	"
6·72	2·08	4·64	9·62	15·40	17.03	" " ..	48452	"
4·14	2·12	2·02	8·80	17·00	18·64	" " ..	48463	"
5·76	2·64	3·12	9 27	14·70	16·20	" " ..	48464	"
6·20	3·36	2·94	9·90	12 52	13·88	" " ..	48481	Extractive low.
J. F. POWER, INSPECTOR.								
3·76	2·24	1·52	8·35	15·70	17·13	Ginger starch and tissues	38255	Genuine.
6·20	2·10	4·10	8·30	14·70	16·03	" ..	38256	"
5·28	2·20	3·08	7·90	15·60	16·93	" ..	38257	"
5·14	1·40	3·74	7·00	14·40	15·48	" ..	38258	"

Date of Collection.		Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.		Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report (Is not an expression of opinion).
										DISTRICT OF VANCOUVER—
1911		Ground Ginger.								
Oct.	27	"	38259	Vancouver Grocery, Granville St., Vancouver	¼	lb.	10	Oriental Mills, Vancouver.	.....	.....
"	31	"	38260	Edgett's Grocery, Hastings St., Vancouver.	¼	"	10	Empress M'f'g. Co., Vancouver.	.....	.....
"	31	"	38261	Woodward's Dept. Stores, Ltd., Hastings St., Vancouver	¼	"	10	Wm. Braid & Co., Vancouver.	.....	.....
"	31	"	38262	Dom. Grocery, Abbott St., Vancouver.	¼	"	10	.....	Kelly Douglas, Vancouver.	"Columbia" Brand.
"	31	"	38263	Foran Bros., Carral St., Vancouver.	¼	"	10	Unknown.....	.....	.....
"	31	"	38264	F. Filion, Carral St., Vancouver	¼	.	10	Empress M'f'g. Co., Vancouver.	.....	.....
										DISTRICT OF VICTORIA—
Oct.	25	Ground Ginger.	47651	Windsor Grocery Co., Victoria.	¼	lb.	10	Pioneer Coffee and Spice Mills, Ltd., Victoria, B.C	.....	Extra quality ginger.
"	25	"	47652	The West End Grocery Co., Ltd., Victoria.	¼	"	10	Todhunter Mitchell & Co., Toronto, Ont	.....	.....
Nov.	9	"	47653	Copas & Young, Victoria.	¼	"	10	.....	W. H. Malkin & Co., Vancouver, B.C.	.....
"	9	"	47654	Wm. B. Hall, Victoria.	¼	"	10	Pioneer Coffee and Spice Mills, Victoria, B.C.	.....	.....
"	13	"	47655	Erskine & Co., Victoria.	¼	"	15	Victoria Coffee and Spice Mills, Victoria, B.C.		
"	13	"	47656	F. E. Plummer, Victoria.	¼	"	10	.....	R. P. Rithet & Co., Victoria, B.C.	.....
"	15	"	47657	D. H. Ross & Co., Victoria.	¼	"	10	Empress M'f'g. Co., Vancouver, B.C.	.....	.....
"	15	"	47658	Harrison & McDonald, Victoria.	¼	"	10	"	.....	.....
"	16	"	47659	E. G. Bailey, Victoria.	¼	"	10	"	.....	.....
"	16	"	47660	Acton Bros., Victoria.	¼	"	10	W. A. Jameson Coffee Co., Victoria, B.C	.....	.....

GROUND GINGER.

Results of Analysis.						Microscopical Examination.	No. of Sample.	Remarks and opinion of the Chief Analyst.
Ash.			Moisture.	Cold water Extractive.				
Total.	Water soluble.	Insoluble in water.		Normal.	Calculated to dry Ginger.			
J. F. POWER, INSPECTOR—*Concluded.*								
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
7·14	3·06	3·08	8·17	16·10	17·52	Ginger starch and tissues	38259	Genuine. Ash high.
4·84	2·36	2·48	7·25	16·30	17·57	" ..	38260	"
4·16	2·00	2·16	6·25	14·50	15·46	" ..	38261	"
4·76	2·08	2·68	7·12	14·50	16·49	" ..	38262	"
4·94	2·54	2·40	7·75	15·10	16·37	" ..	38263	"
4·40	2·80	1·60	7·40	16·60	17·92	" ..	38264	"
D. O'SULLIVAN, INSPECTOR.								
3·60	2·42	1·18	7·45	16·20	17·50	Ginger starch and tissues	47651	Genuine.
5·24	2·30	2·94	7·92	14·20	15·42	" ..	47652	"
6·83	2·62	4·21	7·27	16·70	18·00	" ..	47653	"
3·58	2·04	1·54	7·62	16·00	17·31	" ..	47654	"
7·44	2·10	5·54	7·10	16·00	17·22	" ..	47655	" Ash high.
3·42	1·94	1·48	7·50	16·00	17·29	" ..	47656	"
6·04	2·88	3·16	7·05	15·00	16·13	" ..	47657	"
7·66	4·46	3·20	8·95	17·20	18·89	" ..	47658	" Ash high.
5·26	2·30	2.96	7·22	16·30	17·55	" ..	47659	"
5·44	2·30	3·14	6·52	14·30	15·29	" ..	47660	"

REPORT

OF THE

MINISTER OF AGRICULTURE

FOR THE

DOMINION OF CANADA

FOR THE YEAR ENDED MARCH 31

1912

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
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1912

[No. 15—1913.]

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REPORT

OF THE

MINISTER OF AGRICULTURE

1911-12

To Field Marshal, His Royal Highness Prince Arthur William Patrick Albert, Duke of Connaught and of Strathearn, Earl of Sussex (in the Peerage of the United Kingdom), Prince of the United Kingdom of Great Britain and Ireland, Duke of Saxony, Prince of Saxe-Coburg and Gotha; Knight of the Most Noble Order of the Garter; Knight of the Most Ancient and Most Noble Order of the Thistle; Knight of the Most Illustrious Order of Saint Patrick; One of His Majesty's Most Honourable Privy Council; Great Master of the Most Honourable Order of the Bath; Knight Grand Commander of the Most Exalted Order of the Star of India; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George; Knight Grand Commander of the Most Eminent Order of the Indian Empire; Knight Grand Cross of the Royal Victorian Order; Personal Aide-de-Camp to His Majesty the King; Governor General and Commander-in-Chief of the Dominion of Canada.

MAY IT PLEASE YOUR ROYAL HIGHNESS:

I have the honour to submit to Your Royal Highness a report of the Department of Agriculture for the fiscal year ended March 31, 1912:—

I.—GENERAL REMARKS.

The work of the department has been carried on efficiently, and a synopsis of the operations of the various branches comprised therein is laid before Your Royal Highness under their respective headings.

The operations of this department were carried on under the direction of the Honourable Sydney Fisher up to the 6th October, 1911, being the date on which the late government resigned.

The legislation affecting the department during this period consisted of:—

Chapter 23, 1-2 George V, intituled 'An Act respecting the Inspection and Sale of Seeds.'

By an order in Council of June 8, 1911, under the provisions of Chapter 75, R.S.C., 1906, regulations were established relating to mange in cattle in certain portions of the provinces of Saskatchewan and Alberta. (See Appendix No. 16).

Vide *Canada Gazette,* Vol. XLIV, pp. 4266.

By an Order in Council of June 8, 1911, under the provisions of Chapter 75, R.S.C., 1906, regulations were established relating to mange in cattle in certain portions of the province of British Columbia. (See Appendix No. 17).

Vide *Canada Gazette,* Vol. XLIV, pp. 4267.

By an Order in Council of June 8, 1911, in virtue of the provisions of Chapter 75, R.S.C., 1906, intituled 'The Animal Contagious Diseases Act,' the regulations relating to hog cholera and swine plague established by Order in Council of December 6, 1904, were rescinded and new regulations substituted therefor. (See Appendix No. 18).

Vide *Canada Gazette,* Vol. XLIV, pp. 4265.

By proclamation dated June 14, 1911, under the provisions of Chapter 68, R.S.C., 1906, Part II, the country was divided into census districts and subdistricts.

Vide *Canada Gazette,* Vol. XLIV (Supplement June 10, 1911).

By an Order in Council of June 30, 1911, in virtue of the provisions of Section 3, Chapter 31, 9-10 Edward VII, intituled 'An Act to prevent the introduction or spreading of insects, pests or diseases destructive to vegetation,' the regulations established by Order in Council of date May 11, 1910, were amended by adding to Section 12 thereof 'Chestnut Bark Disease, (Diaporthe parasitica,' and also by adding a new section as follows:—

'13½. The importation of both Chestnut, (Castanea dentata), and Chinquapin, '(Castanea pumila), into Canada from the United States is prohibited.'

Vide *Canada Gazette,* Vol. XLV, pp. 92.

By an Order in Council of June 30, 1911, the regulations established by Order in Council of date April 18, 1910, in virtue of the provisions of Chapter 128, R.S.C., 1906, intituled 'An Act respecting the inspection and sale of seeds,' were rescinded, Chapter 128 R.S.C., 1906, and Chapter 54 of statutes of 1910 having been repealed.

Vide *Canada Gazette,* Vol. XLV, pp. 92.

By an Order in Council of July 5, 1911, in virtue of the provisions of Section 2, of 'The Seed Control Act,' 1911, regulations were established. (See Appendix No. 19).

Vide *Canada Gazette,* Vol. XLV, pp. 173.

By an Order in Council of July 22, 1911, the regulations relating to Sheep Scab established by Order in Council of date March 31, 1905, in virtue of 'The Animal Contagious Diseases Act,' were rescinded, and new regulations substituted therefor (See Appendix No. 20).

Vide *Canada Gazette,* Vol. XLV, pp. 330.

By an Order in Council of July 22, 1911, the regulations relating to Anthrax established by Order in Council of date August 18, 1906, in virtue of 'The Animal Contagious Diseases Act,' were rescinded, and new regulations substituted therefor. (See Appendix No. 21).

Vide *Canada Gazette,* Vol. XLV, pp. 330.

By an Order in Council of July 22, 1911, the regulations relating to Mange established by Order in Council of date June 27, 1904, in virtue of 'The Animal Contagious Diseases Act' were rescinded, and new regulations substituted therefor. (See Appendix No. 22).

Vide *Canada Gazette,* Vol. XLV, pp. 331.

By an Order in Council of July 22, 1911, the regulations relating to Maladie du Coit established by Order in Council of date July 22, 1905, in virtue of 'The Animal Contagious Diseases Act,' were rescinded, and new regulations substituted therefor. (See Appendix No. 23).

Vide *Canada Gazette,* Vol. XLV, pp. 331.

By an Order in Council of August 19, 1911, in virtue of the provisions of Chapter 75, R.S.C., 1906, intituled 'An Act respecting infectious and contagious diseases affecting animals,' the regulations relating to Animals Quarantine established by Order in Council of date November 30, 1909, were amended as follows:—

Section No. 34 is hereby rescinded and the following substituted therefor:

'*Section* 34.—Horses, mules, and asses shall be inspected and, if so ordered by the Minister, may be detained, isolated, dipped, or otherwise treated, or, in default of such order, where the inspector has reason to believe or suspect that the animals are affected with, or have been exposed to contagious or infectious disease.'

Section No. 35 is hereby rescinded and the following substituted therefor:

'*Section* 35.—Horses, mules, and asses must be accompanied by:—

(*b*) A similar certificate from a reputable veterinarian, provided such certificate is endorsed by an inspector of the said Bureau of Animal Industry; or,

(*c*) A similar certificate from an inspector of the Canadian Department of Agriculture.

When not so accompanied horses, mules, and asses must be submitted to the mallein test either at the quarantine station where entry is made or at point of destination under such restrictions as the Veterinary Director General may prescribe.'

Section No. 87 is hereby rescinded and the following substituted therefor:

'*Section* 87.—Any inspector may at any time when he deems such action necessary or advisable, order any steamship, steam, or other vessel, railway car, or other vehicle, used for the conveyance of animals to be cleansed and disinfected to his satisfaction, as provided by Section 86, at the expense of the person or company owning or operating same, and may prohibit the use or removal of such vessel, car, or other vehicle, until his orders in regard to cleansing and disinfection have been properly carried out.

Shippers may refuse to place their animals on any unclean or unsanitary vessel, car, or other vehicle, and may lodge a complaint with the nearest inspector who, if he deems such action necessary or advisable, may exercise the powers conferred upon him by this section.'

By an Order in Council of August 19, 1911, in virtue of the provisions of Chapter 7, R.S.C., 1906, intituled 'An Act respecting infectious and contagious diseases affecting animals,' regulations were established with regard to contagious disease in horses in certain portions of the provinces of Saskatchewan and Alberta. (See Appendix No. 24).

Vide *Canada Gazette,* Vol. XLV, pp. 789.

By an Order in Council of January 20, 1912, in virtue of the provisions of Chapter 74, R.S.C., intituled 'An Act respecting Quarantine,' the Quarantine Regulations established by Order in Council of June 12, 1907, were amended, with a view of making provision against the introduction of disease into the country from the importation of Chinese Hair, to wit:—

The following paragraph shall be inserted after the word 'solutions' in the twenty-second line on page 15 of the printed Quarantine Regulations:

'Human or other hair unmanufactured or uncleaned must be unpacked, and disinfected by steam, or boiling water, before it is allowed entry into Canada.'

The following question shall be inserted on page 22 after the word 'cargo' in question No. 4:

'Is there any human or other hair unmanufactured or uncleaned in such cargo?'

By an Order in Council of March 30, 1912, in virtue of the provisions of Section 6, Chapter 67, R.S.C., 1906, the Census and Statistics Branch of my department was transferred to the Department of Trade and Commerce as from April 1, 1912.

The Ninth International Congress of Agriculture was held in Madrid, Spain, during the first week in May last.

The Honourable Arthur Boyer and Mr. Thomas Kelville Doherty, B.C.L., L.L.B., were appointed delegates to represent Canada. A report thereon is appended. (See Appendix No. 25).

The Third General Assembly of the International Institute of Agriculture was held in Rome, opening on the 14th May last.

The Honourable Arthur Boyer and Mr. Thomas Kelville Doherty were appointed delegates to represent Canada at the General Assembly, the former to be regular delegate to the Permanent Committee of the Institute. A report thereon is appended hereto. (See Appendix No. 26).

A Conference of the International Union for the Protection of Industrial Property was held in Washington, D.C., beginning on May 15 last, and ending on June 2 last, in the deliberations of which Canada participated. Mr. Geo. F. O'Halloran, Deputy

Minister of Agriculture, and Mr. P. E. Ritchie, Registrar of Copyrights and Trade Marks, were the delegates appointed to represent Canada.

The proposition that Canada should be permitted to adhere to the convention, subject to the reservation of certain articles, was not acceded to, and consequently the Dominion of Canada still remains a non-union country. This being the case the provisions of the convention in detail are not of immediate interest, with the exception of Article 16, (bis) which is in part as follows: 'The contracting countries have the right of acceding to the present convention at any time on behalf of their colonies, dependencies and protectorates or any of them. Under the same conditions the contracting countries may denounce the convention on behalf of their colonies, possessions, dependencies and protectorates, or any of them.' The delegation of Great Britain made a declaration to the effect that the word colonies was understood to extend to, and embrace the great self-governing Dominions of the Empire.

In connection with the above Article 16, (bis), the following declaration by the British delegation is of particular interest to Canada:—

'The British government considers that certain of the British Dominions adhering to the convention, which possess powers to legislate on matters of industrial property, should be represented at the conference of the International Union by delegates who should have the same right to vote as is accorded to the delegates of contracting countries, it being understood that the Dominions shall contribute in the same manner as the other Unionist States to the expense of the International Bureau.'

Canada's position with respect to the proposed convention is clearly set forth in the declaration of the Canadian delegation, a translation of which is hereto appended. (See Appendix No. 27).

Upon an invitation from the Dutch government, Canada was represented at the Thirteenth International Anti-Alcohol Congress held at Scheveningen in The Hague, Holland, September 11 to 16 last.

The Honourable Mr. Justice Eugene Lafontaine, of Montreal, Que., and Mr. Francis S. Spence, of Toronto, Ontario, were appointed delegates to represent Canada at this congress. A brief memorandum of the proceedings of the congress has been submitted by the Canadian delegates, and will be found herein. (See Appendix No. 28).

I have to report the retirement at the end of the present fiscal year of a valued officer of the department, Dr. J. G. Rutherford, C.M.G., V.S., H.A.R.C.V.S., who had held the position of Veterinary Director General and Live Stock Commissioner for some years past.

Too much credit cannot be given to Dr. Rutherford for the efficient manner in which he organized and administered these two branches of my department. No appointment has as yet been made to fill the vacancy caused by Dr. Rutherford's retirement.

Canada's participation in the Festival of Empire and Imperial Exhibition held at the Crystal Palace, London, England, was a most creditable display of the resources and natural products of the country. It attracted much attention and obtained the greatest success.

A report on this exhibition, which was officially opened by His Majesty the King on May 12, 1911, and closed on October 31 last, is appended hereto. (See Appendix No. 29).

The Report by the Tobacco Expert, Mr. F. Charlan, gives encouraging results in connection with the past season's work of this branch, and will be found as an appendix to this report. (See Appendix No. 30).

ARTS AND AGRICULTURE.

DAIRY AND COLD STORAGE BRANCH.

The services relating to dairying, fruit, extension of markets and cold storage are grouped together to form the Dairy and Cold Storage Branch. At the head of this branch is the Dairy and Cold Storage Commissioner, who is assisted by experts for each of the divisions mentioned.

THE DAIRYING SEASON OF 1911.

The season of 1911 was marked by a long period of hot dry weather which prevailed over the greater part of the Northern Hemisphere, and which seriously curtailed the production of milk in many countries. The strong demand thus created forced the wholesale prices of butter and cheese to the highest point ever reached in Canada since the export trade began. Although the season was somewhat unfavourable for the production of milk, it is satisfactory to note that there has been, on the whole, some increase in production.

I am informed that the dairying industry in the Maritime Provinces is showing signs of new life and there is likely to be a considerable increase in the manufacture of creamery butter in Nova Scotia.

THE EXPORT TRADE.

The total exports for the year show a slight increase in value as compared with 1910-11. There was also an increase in the exports of butter, against which there was a decline in the quantities of cheese and cream exported.

The statistical position of the international trade in dairy produce seems to be very strong at present. The shortage in the Northern Hemisphere in 1911 was followed by a further shortage in the output of butter in Australasia for the season of 1911-12. On the whole the situation is very encouraging for Canadian dairy farmers.

THE HOME TRADE.

The home trade continues to expand with the increase of population. This accounts for the small increase in the exports. A large quantity of butter and cheese

is now shipped from Ontario and Quebec to the western provinces. The demand for market milk to supply the needs of the larger towns and cities is having a very appreciable effect on the cheese and butter-making industries, and many factories have been converted into milk or cream shipping stations.

DAIRYING EXPERIMENTS.

The investigation which was begun in 1910, having for its object an improvement in the quality of cream supplied to cream gathering creameries, was concluded during the past season, and the results have been published in bulletin form for distribution among the patrons of the creameries.

NEW DAIRY STATIONS.

I have been pleased to authorize the purchase of a creamery business at Brome, P.Q., with the object of erecting a new building to be operated as a model creamery and to provide at the same time the necessary facilities for carrying on creamery investigations.

I have also authorized the purchase of two cheese factories at Finch, Ont. A new combined cheese factory and creamery will be erected to take the place of the two old ones, and this factory will also be conducted as a model cheese factory with facilities for the manufacture of butter in the winter months. It will be equipped for experimental work.

COW TESTING ASSOCIATIONS.

The cow testing propaganda has been continued and extended during the year. Dairy Record Centres, which were first organized in the spring of 1911, have proved to be so successful that I have authorized further extension along this line.

CONFERENCE OF DAIRY EXPERTS.

On the recommendation of the Dairy and Cold Storage Commissioner, I was pleased to authorize the holding of the Third Conference of Dairy Experts under the auspices of the Dairy and Cold Storage Branch. I have reason to believe that these conferences are very beneficial from a technical standpoint, and that they serve the very useful purpose of securing uniformity in the methods adopted by the various dairy instructors throughout the Dominion. A verbatim report of the proceedings of this conference is being published.

EXTENSION OF MARKET DIVISION.

The refrigerator car services for the carriage of butter, cheese and fruit was arranged for with the railway companies as in former years. The inspection of the refrigerator cars was carried on by a staff of six inspectors, three of whom were engaged as travelling inspectors, following the cars over the routes on which they operate, and the other three were located in Montreal to watch the arrival of the cars and report on their condition as regards icing, cleanliness, etc.

The cargo inspection service at Montreal, Quebec and Halifax, and also at the ports of London, Liverpool, Manchester and Bristol, was continued and made more general in its application than in any previous year.

THERMOGRAPH RECORDS.

Thermograph records of the temperature in the cold storage chambers and holds of steamers were secured in practically every ship sailing to Great Britain from Montreal and Quebec during the period of navigation in the St. Lawrence, and also in the steamers carrying cheese from Halifax during the summer months, and those carrying apples during the apple-shipping season.

Some records have also been obtained in the steamers sailing to South Africa from Montreal, and to New Zealand and Australia from Vancouver.

THE FRUIT DIVISION.

The season of 1911 was notable for the record crop of apples produced in Nova Scotia. Reliable statistics give the total shipments from the province as 1,580,496 barrels. Apple growing in Nova Scotia is making rapid strides and a number of new orchards are just coming into bearing, but the big crop was largely due to the fact that all the trees were heavily loaded. For the first time in the history of the apple trade in this country, large quantities of Nova Scotian apples were shipped to Ontario, Quebec and the prairie provinces. 100,000 barrels are said to have been shipped to points west of the Great Lakes, and 76,000 barrels to Ontario and Quebec.

The apple crop of 1911 was unusually free from the defects which arise from the prevalence of fungous pests of one kind or another.

The berry crop in Ontario was cut very short by the hot dry weather which prevailed at the time of harvesting.

THE THIRD DOMINION CONFERENCE OF FRUIT GROWERS.

I was pleased to be able to arrange for the Third Dominion Conference of Fruit Growers which was held under the auspices of the Dairy and Cold Storage Branch on February 14, 15 and 16. There were 42 regularly accredited delegates present, representing the provincial fruit growers' associations, the provincial departments of agriculture, the agricultural colleges, the co-operative societies and the apple shippers' associations.

A full report of the proceedings of the conference is being published for general distribution.

SPECIAL INQUIRY INTO THE FRUIT GROWING INDUSTRY.

A special inquiry into the fruit growing industry was undertaken during the year, under the direction of Mr. J. A. Ruddick, Commissioner in charge of the Branch, the services of Mr. W. H. Bunting of St. Catharines having been secured for that purpose. Mr. Bunting visited all the fruit growing districts in the Dominion, and his report is now being printed and will be available for distribution in a short time.

FRUIT INSPECTION.

The administration of the Fruit Marks Act is an important part of the work of the Fruit Division. Five additional temporary inspectors were appointed during the year. One of these was located at Saskatoon, Sask., and the others were attached to the Ontario and Montreal section. Although the number of actual examinations were greatly in excess of any former year, it is gratifying to be able to state the number of violations were not as numerous as in 1909 or 1910. This was probably due partly to improved packing and partly to the cleaner condition of the crop.

THE FRUIT CROP REPORT.

The monthly edition of the Fruit Crop Report, from May to September, was continued. The compilation of this report calls for care and judgment and an intimate knowledge of the fruit growing conditions in Canada.

FRUIT FOR INTERNATIONAL EXHIBITIONS.

I am informed that the apples collected by the Dairy and Cold Storage Branch in the autumn of 1910 were sufficiently well-preserved to maintain a continuous exhibit at the Festival of the Empire Exhibition at the Crystal Palace, London, during the past summer. These apples were shipped to London in April and held in cold storage, a quantity being removed from time to time as was necessary to renew the exhibit. During the month of September, a further consignment of choice, specially packed, McIntosh Red and Fameuse apples were forwarded to the exhibition where they attracted much attention. A consignment of 195 single layer cases of Elberta peaches was also sent to this exhibition. They arrived in perfect condition and were on exhibition for several weeks.

A further collection of winter apples was made in October last and some 700 boxes are now held in cold storage at Toronto, Montreal and St. John to be forwarded during the next few weeks to the Exhibition Commissioner in London.

COLD STORAGE.

The usual bonus of $100 has been paid to creameries for the erection of suitable cold storages. There were 65 applications received for the bonus during the year. Of this number 47 were approved and received the full bonus.

COLD STORAGE SUBSIDIES.

Six contracts were entered into during the year for the payment of cold storage subsidies with the following firms or persons:—

Campbell and Hamilton, Calgary, Alta.
The Edmonton Produce Co., Edmonton, Alta.
The Moosejaw Cold Storage Co., Moosejaw, Sask.
Moore and Bidwell, Saskatoon, Sask.
The City Cold Storage Co., Regina, Sask.
J. H. Sansregret, Joliette, Qué.

Applications are now (March 31, 1912) under consideration from:—

The Brantford Cold Storage Co., Brantford, Ont.
O'Keefe and Drew, Chatham, Ont.
Central Canada Terminal Storage Co., Fort William, Ont.
Brandon Creamery and Supply Co., Brandon, Man.
Standard Fish and Fertilizer Co., Queen Charlotte Islands, B.C.

CORRESPONDENCE.

In addition to the routine correspondence connected with the oversight of a large outside staff, the administration of the Cold Storage Act, and Parts VIII and IX of the Inspection and Sale Act, there are a large number of technical inquiries received by the Commissioner and his assistants relating to the production of milk, dairy manufactures, fruit growing, the cold storage and marketing of perishable farm products, etc.

PUBLICATIONS.

The following publications have been added to the Dairy and Cold Storage series during the year:—

The Annual Report of the Dairy and Cold Storage Commissioner, ending March 31st, 1911.

BULLETINS.

No. 28. The Dairy Industry in Canada.
No. 29 Notes for Factory Cheesemakers.
No. 30. Cream Cheese.
No. 31. A List of the Cheese Factories, Creameries, and Condensed Milk Plants in Canada.
No. 32. The Care of Cream for Buttermaking.

CIRCULARS.

No. 4. Creamery Cold Storage Bonuses.

SPECIAL REPORTS.

Report of the Third Dominion Conference of Dairy Experts.
Report of the Third Dominion Conference of Fruit Growers.
Report of a Special Inquiry into the Fruit Growing Conditions in Canada. By Mr. W. H. Bunting.

MEETINGS.

The permanent fruit inspectors and officers of the Dairy Division have attended and addressed a large number of meetings during the year.

THE ANNUAL REPORT.

A detailed report of the work of the Dairy and Cold Storage Branch is being prepared as an Appendix to this report and will be published as a separate volume.

SEED COMMISSIONER'S BRANCH.

The work of the Seed Branch has increased greatly during the past year, and some changes have been made in the general educational policy looking to giving more encouragement to the production and use of high class seed. As in previous years, the efforts of the Seed Branch have been directed principally to encouraging the production and dissemination of superior seeds, testing seeds for farmers and seed merchants, and securing the observance of the Seed Control Act. The unfavourable climatic conditions in the different provinces last fall, resulted in reduced yields and impaired quality of grass and clover seed, and cereal grains. This, combined with the new and more stringent regulations governing the sale of clover and timothy seed, made the work more difficult than usual and necessitated increasing the staff of temporary clerks and seed inspectors; but I am glad to be able to report that the work has been done efficiently and promptly, and I trust with results highly beneficial to the country at large.

Beside the temporary help employed, the staff has been strengthened by the appointment of three more permanent officers. A district representative has been appointed for British Columbia with headquarters at Vancouver, one for the province of Alberta with headquarters at Calgary, and the province of Ontario has been divided into two districts and a representative appointed for western Ontario with headquarters at Guelph.

SEED GRAIN SUPPLY.

The unfavourable weather conditions during the summer and autumn of 1911 resulted in a shortage of good seed grain in many parts of Canada. In western Ontario, parts of the Maritime Provinces, especially Prince Edward Island and some districts of Nova Scotia, the oat crop was badly injured by drought in the summer, with the result that the supply of seed oats was short in many districts which ordinarily have a surplus of good seed for outside points. In the prairie provinces the cool summer and early frosts effected considerable damage to the late sown crops. In some districts much of the grain was practically useless for seed, and it was deemed expedient to make the condition of the seed supply a subject for special investigation. A number of special inspectors were employed to visit the various districts, obtain information and collect samples which were forwarded to the Ottawa and Calgary seed laboratories for germination test. The investigation showed that there were comparatively few districts where there was not sufficient seed for local requirements. A full report giving the results of the investigation was published in bulletin form and widely distributed among the settlers in the districts affected. Information regarding the available supplies of good seed was also collected and made available to those desiring to purchase seed.

INSPECTION OF SEED GRAIN DISTRIBUTED TO HOMESTEADERS.

At the request of my colleague, the Honourable the Minister of the Interior, I instructed my Seed Commissioner to have his staff undertake the work of inspecting

the seed grain purchased by the Immigration Branch for distribution to homesteaders in the prairie provinces. The seed grain so distributed is sown on new and clean land, and it is important that it should be as free as possible from noxious weed seeds and be capable of germinating well. With that in view I was pleased to be able to assist my colleague by placing my experts in seed grain at his disposal and believe that much has been accomplished toward giving the homesteaders satisfactory service in supplying them with pure seed grain.

CONDITION OF THE TRADE IN GRASS AND CLOVER SEEDS.

The red clover and alsike seed crop of 1911 was very much below normal in point of area and total seed produced. The extremely dry and hot weather of the summer seasons of 1910 and 1911 that prevailed throughout the principal grass and clover seed producing districts contributed to make the supply of seed unusually short and the prices commensurately high. Instead of Canada exporting large quantities of clover seeds to Europe, supplies were largely imported from other countries. The short crop of Canadian grown seed has made it very difficult for seedsmen to secure local supplies of seed of superior quality.

ADMINISTRATION OF THE SEED CONTROL ACT.

The Seed Control Act of 1911 requires that red clover alsike, alfalfa and timothy seed shall, when exposed for sale, be graded according to fixed standards of quality. These new regulations have been well received by both farmers and seedsmen, and, in spite of the abnormal conditions of the seed supply, the Act has been well observed and has resulted in much improvement in the commerce of these seeds. Seed inspection work is being carried on more thoroughly this spring than ever before and all inspectors are instructed to endeavour to secure the observance of the Act by education and moral suasion. The advantages of having our principal grass and clover seeds, when exposed for sale, properly marked with a grade name in order to make it as easy as possible for farmers to purchase seeds of definitely known quality, appeal to seedsmen and farmers alike.

FIELD CROP COMPETITIONS AND SEED FAIRS.

For several years it has been the policy of the Seed Branch to encourage the production and use of good seed by assisting in organizing and conducting field crop competitions, seed fairs and provincial seed exhibitions in the various provinces. As this work is really provincial in character, the provinces gradually took it over, until last summer assistance was given by the Seed Branch only in Alberta, Quebec and the Maritime Provinces. In order to render equally substantial assistance on a basis equitable and agreeable to all the provinces and also to hand over to them and their agricultural societies the full control and responsibility for organizing and conducting these institutions, I authorized the payment to each province of subvention according to the amount of work accomplished. Under the new arrangement each province may be reimbursed to the extent of two-thirds of the moneys paid out in prizes at field

crop competitions, seed fairs and provincial seed exhibitions, the total amount of subvention not to exceed $50 for each seed fair, $50 for each kind of crop in a field crop competition, the total not to exceed $150 for any one agricultural society; and $400 for a provincial seed exhibition. The total amount available to each province is limited by the area under cultivation in field crops as shown by the census returns. Each province is entitled to receive up to $1,000, and those provinces which have a greater area than 1,000,000 acres under field crops may receive subvention in the ratio of $1,000 for each million acres of land under field crops. Under this arrangement approximately $30,000 is made available to the provinces for the purpose of encouraging the production and use of good seeds.

CANADIAN SEED GROWERS' ASSOCIATION.

At the last annual convention of the Canadian Seed Growers' Association important amendments to the constitution were adopted which should serve to make the work of seed selection and growing more attractive and remunerative. Under the new regulations the work of selection is made simpler and the farmer is enabled to grow a much larger quantity of seed eligible for registration. Both the growing crops and the threshed grain will be inspected by officers approved by the association, and if satisfactory the grain will be sealed by the inspectors before it leaves the premises of the growers. In this way the interests of both the grower and purchaser will be protected. The new system has given good satisfaction thus far and the rapidly increasing demand for seed of superior quality will doubtless tend to stimulate a large number of careful farmers to make seed growing a special feature of their farming operations. Financial assistance to the association, sufficient to enable it to carry on efficient educational work, has again been granted and the officers of the Seed Branch have been instructed to continue to co-operate in the inspection and educational work of the association.

IMPROVEMENT IN PASTURE AND FODDER PLANTS.

A start was made last season in an attempt to improve the grasses, clovers and fodder plants in Canada. This work is in charge of Dr. M. O. Malte who came to the Seed Branch staff from Sweden in the fall of 1910, and is about to be transferred to the Experimental Farms Branch. The work last summer consisted largely in making a survey of the flora of Canada which may be utilized for producing improved kinds and varieties of cultivated fodder and pasture plants. A short time was spent in each province and much material was collected that promises to be useful for the purpose of breeding and selecting.

TRIAL PLOTS OF FIELD ROOT SEEDS.

A series of trial plot tests has been inaugurated with field root seeds, with the object of securing definite information regarding their quality in respect to the genuineness of the seed stock imported and sold in Canada. There are well defined forms of mangels, carrots and turnips which are recognized as distinct varieties by seed growers in the countries from which we import our seed supplies. There is also some

variation within the distinct varieties, due to the work of selection by different growers, and this has led to a confusing multiplicity of nomenclature as applied to variety forms, some of which are carefully grown and selected while others appear to be markedly inferior and impure.

In working out the results of these trial plot tests, an endeavour will be made to associate, as far as possible, each kind and variety with definitely known standard type forms; and in presenting the information it is contemplated that the names of the varieties under which the seeds are sold will be given, together with the standard type to which the variety belongs. It is the intention to continue this work during three consecutive years at least before the information gained will be made public, and it is believed that by that time reliable results will be obtained.

SEED TESTING FOR FARMERS AND MERCHANTS.

The light crop of comparatively impure clover seed produced in Canada, the exceptionally large amount of Ottawa valley timothy that was threshed for seed late in the season, the new regulations of the Seed Control Act requiring clover and timothy seed to be graded, and the injury to the cereal crop in the prairie provinces, all combined to make the work of seed testing for farmers and seed merchants much heavier than ever before. From April 1, 1911, to March 31, 1912, the number of samples received at the Ottawa seed laboratory was 9,959 which, with the 1,391 samples tested in connection with investigation of the seed supply, made a total of 11,350 compared with 6,180 the previous year, an increase of 83 per cent. The samples tested for purity and graded were: Red clover, 2,336; alsike, 1,434; alfalfa, 357; timothy, 2,171; total, 6,298, compared with 4,111 the previous year, an increase of 53 per cent. The greatest increase was in the number of the timothy samples tested, which rose from 821 to 2,171. The samples of wheat, oats, barley and flax tested for germination, apart from those tested in connection with the investigation, totalled 1,909, divided as follows: Wheat, 529; oats, 1,037; barley, 179; flax, 164. The proportion of samples germinating below 63 per cent, was: Wheat, 11 per cent; oats, 30 per cent; barley, 28 per cent; flax, 16 per cent. In the previous year the tests were, total, 318; wheat, 83; oats, 185; barley, 25; flax, 25; and the proportion below 63 per cent was: Wheat, 5 per cent; oats, 11 per cent; barley, 12 per cent; flax, 8 per cent.

At the Calgary seed laboratory the number of samples tested during the year ending March 31, 1912, was very much in excess of any other year, nearly equalling the total previously tested since the laboratory was established in January, 1907. The great bulk of the tests were for germination as the laboratory was very extensively used by farmers for determining the vitality of their grain that had been injured by frost. The total number of samples received was 9,178 compared with 1,281 in the previous year. Of these, 8,792 were tested for germination. The samples of wheat, oats, barley and flax received from Alberta for germination test totalled 7,114, divided as follows: Wheat, 1,272; oats, 4,961; barley, 687; flax, 194. The number of samples germinating below 63 per cent was: Wheat, 109; oats, 1,814; barley, 103; flax, 23. There was also a marked increase in purity work, the number of samples being 720, compared with 113 the previous year.

PUBLICATIONS.

During the year several ordinary and special bulletins have been published for distribution. The special bulletins include: Summary Results of Competitions in Standing Fields of Grain in Alberta, 1911; Summary Results of Competitions in Standing Fields of Seed Grain in Quebec, New Brunswick, Nova Scotia and Prince Edward Island, 1911; and The Seed Grain Supply Manitoba, Saskatchewan and Alberta, 1912. The ordinary reports and bulletins now available include: The Seed Commissioner's Report, which contains a summary of the work of the Seed Branch since its organization with much information regarding seed testing, seed improvement and relative work; bulletin No. S-6, which includes a reprint of the Seed Control Act, rules for seed testing, and illustrations and descriptions of about 90 weeds and weed seeds; and bulletin No. S-7, entitled 'Wild Oats and False Wild Oats, Their Nature and Distinctive Characters.' No. S-7, gives the result of several years work on the question of the identity and characters of certain peculiar forms of apparently wild oats which have been the subject of a great deal of discussion, especially in the prairie provinces.

THE LIVE STOCK BRANCH.

The work undertaken, during the year, in the Live Stock Branch, while following a similar course to that pursued in former years, was carried forward in certain instances along somewhat new and more extended lines. Before referring to the several special features pertaining to the actual work undertaken in the branch, it may be of interest to note, in passing, that public opinion is becoming more and more keenly focussed on the existing situation as regards live stock production throughout the Dominion.

Decreased marketings, firm prices, increased consumption, represent, in concise form, the leading and most significant phases of the live stock trade during the past year. That there is a regrettable lack of development in the breeding and feeding of meat producing animals is impressing itself generally upon the public mind. The fact that this branch of the department has devoted considerable attention to an investigation of the present status of the live stock industry, and, in certain instances, of the conditions attending its indifferent progress, is directing the interest of stockmen generally to a study of present conditions and is emphasizing the need for a forward movement in the production of all classes of live stock on Canadian farms. There is no doubt that the somewhat unfavourable season of 1911 produced unexpected hardships and accentuated the circumstances tending toward decreased production in many parts of the Dominion. It served, however, to concentrate the attention not only of those engaged in agriculture, but also of those following other professions upon the necessity for the further encouragement and development of live stock production in this country. It is evident that there is, amongst farmers as a class, an awakening of interest in the keeping of live stock, and it is believed, therefore, that the present time affords very great opportunities for the undertaking of aggressive measures in the interests of this important industry.

The investigation by Messrs. Dryden and Ritch of the business of sheep raising and of the production and marketing of wool in Canada, Great Britain and United States, which was initiated during the summer of 1910, was completed late in the spring of the following year. The preparation of their report occupied the time of the Commissioners until the month of September, when the commission was disbanded. Mr Ritch's services, however, were retained for a somewhat longer period, in order that an educational campaign, with particular reference to the production, handling and marketing of wool, might be undertaken, prior to the adoption of a more specific policy in the interests of the sheep industry. The advantage of this missionary campaign, as it may be termed, is demonstrated by the success which has attended his meetings in the Maritime provinces and in the Canadian West. It is conceded that, as direct result of the work begun by the Commissioners and continued by Mr. Ritch, there is a revival of interest in the keeping of sheep in many sections of both Eastern and Western Canada, and it would appear that the foundation for future successful work has been well laid, in consequence of the policy which is being pursued by the Department.

The Report of the Commissioners was issued in the month of January and was at once distributed to a very large number of breeders and farmers in the different provinces of the Dominion. The Report reviews in detail the conditions attending the keeping of sheep in Canada, refers to the increased consumptive demand for mutton, points out the possibilities likely to result from a development of the business, and, through its descriptions of sheep raising in Great Britain and United States, illustrates the manner in which greater progress can be brought about in this country. The recommendations with which the Report concludes call attention to definite measures which may be undertaken, with the view of ameliorating existing conditions and of leading to an expansion of sheep raising in Canada.

Steps are now being taken to follow, in part at least, the recommendations included in this report, through the inauguration of a policy having for its object the permanent establishment of the keeping of sheep as an important factor in the agricultural development of the country.

During the summer of 1911, the Department undertook, in accordance with certain clearly defined conditions, to grant assistance to those maintaining Thoroughbred stallions for breeding purposes. In recognition of the value of Thoroughbred blood in improving the light horse stock of the country and in view of the fact that the keeping of Thoroughbred stallions was becoming less and less, under ordinary circumstances, a paying proposition, it was determined to grant such aid to owners of sires of this class as would induce the general and systematic employment of an approved type of Thoroughbred stallion in districts where any interest was manifested in the breeding of horses for saddle and harness use. It has been required that all owners, applying for the grant, should submit their horses to an inspection, as regards soundness and individuality, by an officer of the Department, should stand their horses at a fee, for mare other than Thoroughbred mares, not to exceed $10 to insure, and that there should be furnished, at the close of the service season, sufficient information, pertaining to the number of mares served, &c., to indicate that such season had been in accordance with the conditions imposed by the Department. To the owner of each stallion qualify-

ing therefor a grant of $250 was awarded, and, to the close of the present fiscal year, 36 horses have been awarded the grant.

The number of cows entered for test in the Canadian Record of Performance has continued to increase. A total of 801 were entered during the year ending March 31st, 1912, as compared with a total of 586 entered during the year ending March 31st, 1911. In 1911-12, 160 cows, of the various breeds represented, qualified for entry, under the prescribed regulations, in the official record, while in 1910-11 the total number which qualified in this way was 145. The appointment of additional inspectors has afforded facilities for the rendering of a more efficient and satisfactory service than has hitherto been possible, and, in consequence the work undertaken has grown both in popularity and in utility.

Beginning with the first of January, a new feature was introduced, when the inspectors were required to make weighings, during their visits, of all fodder which was being fed to the cows under test. They were further required to report in detail to the office of the Live Stock Commissioner the cost of the milk being produced and the nutritive composition of the ration, in accordance with a table furnished them, setting forth the prices and the nutritive constituents of the different feeds in ordinary use. An unexpected interest has developed in this new phase of the work undertaken in the interests of those owning and breeding dairy cattle, and, while any statement regarding what is being accomplished would, at the present, be premature, it is believed that this inquiry pertaining to the economy of production will ultimately prove an important adjunct to the Canadian Record of Performance.

After an interval of four years, a Convention of the National Live Stock Association was held in Ottawa, during the month of February, and was attended by men, representative of our varied live stock interests, from all the provinces of the Dominion. Several very important subjects, including Bovine Tuberculosis, Transportation of Live Stock, Interprovincial Trade, and the Present Status of Live Stock Production, were discussed by different speakers, and, based upon the consideration which these subjects received, a number of comprehensive resolutions were drafted and endorsed as defining the views of the members of the association. A full report of the proceedings is being printed, and, when published will be distributed to all persons whose names appear on the mailing list of the Branch. It will also be mailed, upon request, to anyone who may desire to obtain a copy, and, in view of the valuable material which it contains, a careful reading may be unhesitatingly recommended to any desiring to obtain a suggestive resumé of the existing conditions relative to and affecting the live stock trade in the several provinces of the Dominion.

A special officer of the department has been engaged, during the past few months, in making a study of the methods followed in the production and marketing of eggs and poultry by farmers in Ontario and Quebec, and of the manner in which poultry products are handled in the course of their progress from the producer to the consumer. Through this inquiry much valuable information has been secured, and, by it also, the way has been cleared for the undertaking of definite constructive work in the interests of the poultry industry.

A further inspection of French Canadian horses has been arranged for and has, in fact, been commenced. This final examination of stallions and mares, for registra-

tion as foundation stock, is serving to extend the possibilities for development within the breed itself, which it was thought had been retarded by the rather limited number of animals hitherto recorded. It is providing also for the admission of many desirable horses from certain districts where full advantage had not been taken, by the farmers, of the opportunity afforded them of having their horses examined at the time of the previous inspections. It is expected that the work will be concluded early in the summer of the current year.

Considerable assistance has been continued to various provincial organizations in order to further advance the work undertaken by them in the interests of the live stock industry. Of the bodies receiving aid of this nature, there may be mentioned, The Maritime Winter Fair, The Poultry Producers' Association, as also the Boards in control of the Winter Fairs and Stock Sales in the provinces of Manitoba, Alberta and Saskatchewan. As an appropriation to the National Live Stock Records, the Record Board received from the department a substantial grant, and, in addition, the usual assistance as regards the use of office space, stationery and mail and messenger service. Several grants of varying amount, being in the nature of special aid for particular purposes, have also been made during the past year and, it is believed, with compensating returns.

The furnishing of expert judges and lecturers, in response to the requests received from the several provinces, continues to constitute an important feature of the work of the branch. The services of qualified men to act as judges at exhibitions and as lecturers at institute meetings and stock judging schools are in constant demand. The advantages derivable from an interchange of thought and opinion by the stock men of the different sections of the country are now generally recognized and the policy of the department in rendering this possible is evidently receiving general endorsation.

In concluding this summary of what has been undertaken in the Live Stock Branch, during the past year, reference may be made to the bulletins and reports which have been issued. Other than the report of the Sheep Commissioners, previously referred to, the following publications have been printed and widely distributed:—The Annual Report of the Live Stock Commissioner, as it appeared in the report of the Veterinary Director General and Live Stock Commissioner, for the year ending March 31, 1911; Bulletin No. 14, 'Horse Breeding and Rearing of Colts,' by J. G. Rutherford, C.M.G.; Bulletin No. 15, 'Government Assistance to Agriculture in Certain Countries of Europe,' by H. S. Arkell, and Report No. 3, Canadian Record of Performance. The bulletins issued by the branch have been of valuable assistance in replying to the queries of correspondents with reference to various live stock subjects, and the steady demand for copies of the different publications is an evident indication that they are appreciated by farmers and stock men generally.

EXPERIMENTAL FARMS AND STATIONS.

At the close of the fiscal year covered by the present report, the system of Experimental Farms and Stations includes, in addition to the Central Farm at Ottawa, the following branch Farms and Stations, which are given in geographical order from east to west:—Experimental Station, Charlottetown, P.E.I., Experimental Farm, Nappan,

N.S., Experimental Station, Kentville, N.S., Experimental Station, Ste. Anne de la Pocatière, Que., Experimental Station, Cap Rouge, Que, Experimental Farm, Brandon, Man., Experimental Farm, Indian Head, Sask., Experimental Station, Rosthern, Sask., Experimental Station, Scott, Sask., Experimental Station, Lethbridge, Alta., Experimental Station, Lacombe, Alta., Experimental Farm, Agassiz, B.C., Experimental Station, Invermere, B.C., Experimental Station, Sydney, Vancouver Island, B.C., a total of fourteen Farms and Stations. In addition, sub-stations are maintained at Kamloops, B.C., and at Fort Vermilion, on the Peace River, Alta.; experimental work has also been carried on during the year, though no land is owned or rented by the Department, at Athabasca Landing and at Forts Smith, Resolution and Providence, all in northern Alberta.

While much of the work done during the year has been a continuation of the investigations of years past, some of its features have been so elaborated as to be practically new. These are chiefly in connection with the western Farms and Stations where stronger emphasis is being placed on the necessity of diversified farming. The testing of varieties of cereals, fodder corn, roots, clovers and grasses was again carried on, and the annual distribution of seed for the improvement of crops was made, under some new regulations, calculated to make it of more value to the Canadian farmer.

The volume of correspondence has shown that steady increase which has been going on from year to year. Since April, 1911, the following Bulletins have been issued:—No. 69, The Honey Bee, No. 70, Cut-worms and Army Worms, No. 71, The Annual Crop Bulletin, No. 7 (Second Series) The Destructive Insect and Pest Act and Regulations issued thereunder, No. 8, Alfalfa Growing in Alberta, and No. 9, The Control of Insect pests in Canada; the annual Report of the Experimental Farms was also published.

On April 1, 1911, Mr. J. H. Grisdale, B.Agr., formerly Dominion Agriculturist, was appointed to the position of Director, previously held by Dr. Wm. Saunders, C.M.G., whom advancing and consequent poor health compelled to retire.

SOME NOTES ON THE SEASON.

On the Central Experimental Farm, the trial plots of grain gave a yield below the average, owing to the high temperatures and light precipitation during the growing season. The average yield per acre of twenty-one varieties of spring wheat tested was 27 bushels, 7 lbs. per acre. The average yield of 19 varieties of oats was 64 bush. 12 lbs.; of 13 varieties of six-row barley, 49 bush. 32 lbs.; and of two-row barley, 42 bush. and 41 lbs., per acre. Fourteen varieties of peas averaged 21 bush. 15 lbs. From eleven varieties of Indian corn grown for ensilage, the average return was 13 tons, 1,660 lbs. per acre. Turnips averaged 24 tons, 60 lbs. per acre and mangels 22 tons, 1,750 lbs. Of twenty-four varieties of potatoes, the highest yielded 352 bush. and the lowest 132 per acre.

EXPERIMENTAL STATION, CHARLOTTETOWN.

There was very little rain in March and April in Prince Edward Island, but seeding was delayed by cold until the maddle of May. The weather until harvest continued dry, with very high temperatures, which made the yield of hay and cereals only an

average one. Rains late in August and in September helped the yields of Indian corn and roots very materially.

Fourteen varieties of spring wheat averaged 21 bushels 46 lbs. per acre; 25 varieties of oats, 66 bushels 23 lbs. per acre; 12 varieties of six-row barley, 45 bushels 13 lbs.; and 10 varieties of two-row, 43 bushels 31 lbs. per acre . Of peas, twelve varieties tested averaged 44 bushels 49 lbs. per acre. Indian corn grown for ensilage averaged 13 tons, 612 lbs. per acre; turnips, 13 tons, 1,811 lbs., mangels, 33 tons, 1,129 lbs., while 21 varieties of potatoes averaged 236 bushels per acre.

EXPERIMENTAL FARM, NAPPAN, N.S.

The spring weather in Northern Nova Scotia was exceptionally dry and cool, but seeding was finished rather earlier than in the previous year. The early growth of hay was backward. June and the first half of July were hot and dry but rains later resulted in a fair crop of cereals being harvested. During the remainder of the growing season, the rainfall was less than usual and only fair returns of Indian corn, roots and potatoes were obtained, the latter, however, being of excellent quality, as were apples also, although the yield was not large.

Ten varieties of spring wheat tested gave an average yield per acre of 37 bushels 20 lbs.; fifteen varieties of oats, 73 bushel 27 lbs. per acre; eight varieties of six-row barley an average of 45 bushels 40 lbs.; nine varieties of two-row, 47 bushels 24 lbs. Of peas, twelve varieties averaged 26 bushel 20 lbs. per acre. In Indian corn for ensilage, 13 tons, 1,422 lbs. was the average yield per acre of eight varieties. Turnips averaged 36 tons 1,768 lbs., and mangels 38 tons 300 lbs. Of the seventeen varieties of potatoes tested, 379 bushel 56 lbs. was the average return.

EXPERIMENTAL STATION, KENTVILLE, N.S.

This station, about 240 acres in extent, was acquired in 1910 and was almost all in timber or covered with brush. During the past year the work of clearing and breaking was continued and last winter sufficient timber was cut and sawn for the buildings at present required.

EXPERIMENTAL STATIÓN, STE. ANNE, QUE.

The station, also recently acquired, consists of about 126 acres. During the past year it has been put into shape, to a considerable extent, for experimental work, and some material got ready for fencing and erecting the necessary buildings.

EXPERIMENTAL STATION, CAP ROUGE, QUE.

In 1911, the spring opened with very hot weather, as high as 91 degrees being recorded in May. As the rainfall was very light, the ground was very dry at seeding time, which began about May 15. Both the summer and autumn months were favourable for growth and very good crops were harvested.

Ten varieties of spring wheat gave an average yield of 27 bushel 49 lbs. per acre. Of oats, eleven varieties averaged 75 bushels, 13 lbs. Six-row barley, with seven

varieties, averaged 25 bushels 24 lbs., and two-row, with six varieties, 35 bushels 22 lbs. per acre. In peas, ten varieties averaged 28 bushels 36 lbs. Turnips averaged 22 tons 1,905 lbs., and mangels 5 tons, 1,478 lbs. The yield of the latter was affected by being sown on an area unsuited to the conditions of the season. The Indian corn, on similar lands, was ploughed under. In potatoes, 27 strains, of sixteen varieties, were sown, one object being to test strains of the same variety, brought from different parts of the country. Marked variations in yield were recorded, the average crop being 77 bushels 8 lbs. per acre.

EXPERIMENTAL FARM, BRANDON, MAN.

Seeding in 1911 began rather late in the Brandon district, about April 20. Until the middle of July, the season was rather dry and the grain crops suffered; from then on, rainfall was abundant. As a result, the yields of grain were below the average, both in yield and quality, while the returns of roots and potatoes were unusually good. Harvesting began on July 31, but was delayed, as was also threshing, by bad weather. No injury was experienced from frost, the first severe one being on September 25.

Of the eight varieties of spring wheat tested, the average yield was 41 bushels 35 lbs. per acre. Seventeen varieties of oats averaged 84 bushels 20 lbs. per acre. The six-row varieties of barley, eleven of which were tried, averaged 62 bushels 8 lbs., and seven varieties of the two-row averaged 57 bushels 3 lbs. per acre. Of the thirteen varieties of peas tested, the average yield was 47 bushels 54 lbs. per acre. Nine varieties of Indian corn were grown for ensilage, averaging 21 tons, 1,791 lbs. per acre. Turnips gave an average return of 27 tons 230 lbs., and mangels 29 tons 1,914 lbs. per acre. Thirty varieties of potatoes were tested, the highest yield being 777 bushels, and the lowest 275 bushels per acre.

EXPERIMENTAL FARM, INDIAN HEAD, SASK.

The weather during the early part of April was cold and backward, but became warmer by the middle of the month and seeding was general by the 20th. Ample rainfall during May and June caused rapid growth, but the rain continued through July and August, and frost on the 25th and 27 of the latter month injured the grain not in stook. Harvesting, which started on August 15 with barley, and on the 18th with Marquis wheat, and threshing operations later on, were both delayed by the heavy straw and wet weather. The yields were heavy, however, and roots and potatoes, which were harvested without injury, gave the heaviest yields ever obtained on the Experimental Farm.

Nine varieties of spring wheat averaged 39 bushels 29 lbs. per acre. Of oats, fifteen varieties averaged 127 bushels 16 lbs. per acre. Eleven varieties of six-row barley gave 84 bushels 30 lbs. per acre, and eight of two-row yielded 74 bushels 5 lbs.

Although the yield of peas was reduced by frost, 12 varieties gave an average yield of 37 bushels 8 lbs. per acre. Nine varieties of Indian corn grown for ensilage gave an average return of 20 tons, 1,800 lbs. Turnips gave an average of 34 tons, 102 lbs. per acre, and mangels one of 31 tons, 235 lbs. Seventeen varieties of potatoes averaged 649 bushels, 43 lbs. per acre.

EXPERIMENTAL STATION FOR NORTHERN SASKATCHEWAN.

ROSTHERN, SASK.

Seeding in this district was from two to three weeks later than in 1910, beginning about April 15. The rainfall, although not heavy, was well distributed throughout the earlier part of the season and all field crops gave good returns. Cool and wet weather delayed maturing and harvesting and there was some injury from frost as a result.

Ten varieties of spring wheat gave an average yield of 63 bushels per acre and fifteen of oats gave one of 119 bushels 15 lbs. per acre. Of nine varieties of six-row barley, the average yield per acre was 79 bushels 12 lbs. and 6 sorts of two-row averaged 77 bushels 28 lbs. In Indian corn for ensilage, seven varieties gave an average return of 9 tons, 1,786 lbs. per acre. Turnips averaged 21 tons, 517 lbs. per acre and mangels 20 tons, 392 lbs. Seventeen varieties of potatoes were tested, the highest yield being 585 bushels, 12 lbs. and the lowest 193 bushels 36 lbs. per acre.

EXPERIMENTAL STATION FOR NORTHWESTERN SASKATCHEWAN.

SCOTT, SASK.

On this station, but recently put into operation, complete experimental work was not attempted during 1911, the season being devoted mainly to preparation and to the growing of field crops. Up to August 19, the weather was most favourable for growth, when a severe hailstorm destroyed much of the crops on the Station and parts of the surrounding district, greatly injuring the remainder. The harvest weather also was unfavourable, rain and frost doing some damage.

EXPERIMENTAL STATION FOR SOUTHERN ALBERTA.

LETHBRIDGE, ALTA.

As stated in previous reports, experimental work in the growing of crops is carried on under both irrigated and non-irrigated conditions.

The spring of 1911 opened early and fall wheat appeared to have wintered well. Seeding began early in April and crops came on rapidly until dry weather set in during the latter part of May and early June which prematurely ripened the winter wheat, the yield of which was light. Rain in the latter part of June brought the other crops along well. On August 15, the grain on a large part of the Station was damaged or destroyed by a severe hailstorm, all of the grain on the non-irrigated part being destroyed and that on the irrigated reduced some 20 to 25 per cent. Wheat already cut was badly threshed out. Root crops and potatoes also suffered greatly.

On non-irrigated land, winter wheat averaged 32 bushels 6 lbs. twelve varieties being tested. Spring wheat, oats and barley were destroyed by hail. Twelve varieties of peas gave an average yield of 22 bushels 32 lbs. per acre. Seven varieties of Indian corn for ensilage gave an average of 16 tons 1,629 lbs. per acre. Ten varieties of

turnips averaged 14 tons, 1,947 lbs. and 8 varieties of mangels, 15 tons 1,336 lbs. per acre. Of eighteen varieties of potatoes tested, the highest yielded 396 bushels and the lowest 222 bushels 12 lbs. per acre.

On the irrigated land, five varieties of spring wheat gave an average of 52 bushels 9 lbs. per acre and 5 sorts of oats one of 84 bush. 12 lbs. Six-row barley, with six varieties, gave an average of 62 bushels 11 lbs and 4 varieties of two-row averaged 59 bushels 18 lbs. per acre. Twelve sorts of peas averaged 39 bushels 24 lbs. per acre. Indian corn for ensilage, seven varieties of which were grown, averaged 16 tons, 366 lbs. per acre. Turnips averaged 22 tons, 892 lbs. per acre and mangels 20 tons, 731 lbs. Eighteen varieties of potatoes were tested, the highest yield being 546 bushels 40 lbs. and the lowest 223 bushels 20 lbs.

EXPERIMENTAL STATION FOR CENTRAL ALBERTA.

LACOMBE, ALTA.

The season of 1911 at Lacombe opened rather late and was remarkable throughout for its heavy rains, the total rainfall for the six months from April 1 being 17.8 inches. One heavy storm, on June 21, partially washed out some of the grain plots and almost destroyed the root crop.

Nine varieties of winter wheat gave an average of 41 bushels 6 lbs. per acre, and eleven of spring wheat 36 bushels 8 lbs. per acre. Twenty-one varieties of oats gave the high yield of 106 bushels 7 lbs. per acre. Eleven sorts of six-row barley averaged 79 bushels 26 lbs. per acre, and thirteen varieties of two-row, 60 bushels 42 lbs. per acre. The results with peas were disappointing, the average of thirteen varieties being only 8 bushels. Indian corn also did poorly, owing to the wet, cool season, seven varieties averaging 3 tons 1,592 lbs. per acre. As above stated, the yields of turnips and mangels were very small. Twenty-two kinds of potatoes were tested, the largest yield being 269 bushels 30 lbs., and the lowest, 41 bushels 15 lbs.

EXPERIMENTAL FARM AT AGASSIZ, B.C.

In this district of British Columbia, the weather during April was, on the whole, quite favourable, although growth was not rapid. The early part of June was wet and cold, but, being followed by dry, warm weather, field crops gave fairly good returns and were harvested in excellent condition.

Ten varieties of spring wheat tested, averaged 21 bushels 30 lbs. per acre. Of the fifteen varieties of oats tested, the average yield was 52 bushels 27 lbs. Ten varieties of six-row barley averaged 31 bushels 15 lbs., and eight of two-row 36 bushels 1 lb. per acre. Of field peas, twelve varieties averaged 25 bushels 40 lbs. per acre. The average yield of nine varieties of Indian corn grown for ensilage was 16 tons 1,373 lbs. per acre. Turnips returned an average of 13 tons 1,364 lbs., and mangles 14 tons 875 lbs. In the sixteen varieties of potatoes tested, the highest yield was 457 bushels 36 lbs., and the lowest 134 bushels 12 lbs.

EXPERIMENTAL STATION, INVERMERE, B.C.

This station, purchased last year, consists of some fifty-two acres, and is to serve mainly as an experimental fruit station. This work will be conducted under irrigation. The land has been cleared and most of it broken this year.

EXPERIMENTAL STATION, SYDNEY, B.C.

This station is located on Vancouver Island, and is about 135 acres in area. To a great extent it is covered with heavy timber, and clearing operations have not yet been commenced.

SUBSTATIONS.

At Kamloops, B.C., where some operations under 'dry-farming' conditions are being carried on the season was a very unfavourable one, owing to the almost complete lack of precipitation during the winter of 1910-11. The work is carried on on the 'Harper Ranch,' where ten acres is rented for the purpose.

At Fort Vermilion, on the Peace River, land is rented for experimental work on the farm of Mr. Robt. Jones, who carries on the work for the department. Excellent results were obtained last season with cereals and some of the hardier vegetables, although there was considerable damage from frost.

AGRICULTURAL AND LIVE STOCK DIVISIONS.

FIELD CULTURAL WORK.

The comparative tests of different rotations, the first of which were inaugurated thirteen years ago, have been continued and in part completed. The results of these tests indicate clearly the superiority of the relatively short rotation as a soil cleanser and a profit producer.

For intensive dairy farming, a three-year rotation, namely: First year, corn or roots; 2nd year grain, seeded down clover, timothy and alfalfa; 3rd year, hay; has so commended itself that it is proposed this year to put down the greater part of the '200-acre farm' to this rotation.

Further studies have been made regarding the economy of using large-size implements, and the results accord with our findings of previous years. Where it is at all practicable, there is no doubt but that a considerable saving in money can be made by the use of larger implements than now find general favour among our farmers.

LIVE STOCK.

Horses are used for working purposes only, no breeding whatever being done.

Beef cattle work is now limited to the feeding of steers, the herd of dual purpose Shorthorns having been transferred to our Experimental Farm at Brandon.

Dairy cattle are receiving increased attention. Holsteins and Jerseys have been placed in the stables so that there are now representatives of five breeds, namely: Holsteins, Ayrshires, Guernseys, Jerseys and French-Canadians.

Sheep are not kept in large numbers because of the limited pasture area available. Shropshires and Leicesters, representing respectively the short and long wool types of sheep, make up the flock. In addition to the breeding of pure-bred animals experimental work in the fattening of wethers has been carried on with instructive and profitable results.

Swine raising has proven one of the best paying branches of the live stock work. Yorkshires, Tamworths and Berkshires are kept, with which breeding and feeding experiments are carried on. Many pure-bred animals are annually sold for a moderate price, and the increasing demand for such stock indicates the efforts that are being taken by farmers to improve their breeding herds.

HORTICULTURAL DIVISION.

The Dominion Horticulturist, Mr. W. T. Macoun, who has charge of the Horticultural Division, has been able during the past year to render valuable assistance to the Superintendents of the Branch Experimental Farms and Experimental Stations, in suggesting new experimental work and in better systematizing the work which has been in progress. By visiting the Branch Farms, the Dominion Horticulturist conferred personally with the Superintendents and was thus brought into close touch with their work. On the newer farms, where little or no planting had been done, he assisted in planning and planting the orchards and ornamental grounds; as for instance at the Experimental Station at Scott, Sask., on the open prairie where there were no trees growing naturally, he assisted in planting the first apples, plums, bush fruits, strawberries, and ornamental shrubs set out. At Rosthern, Sask., and Lacombe, Alta., also, planning and planting were done. At the Experimental Station, Cap Rouge, Que., where the first planting was done in 1911, he assisted in laying out the orchards and other plantations. At the Experimental Station at Kentville, N.S., he suggested the area to be devoted to Horticultural work and ordered the fruit trees required for the land to be planted in 1912. He also had apple seed of the best winter varieties sown there in the autumn of 1911, looking to the growing of new varieties which, it is hoped, will prove useful in Nova Scotia. At the other Branch Farms and Stations he was able to aid the Superintendents in many ways. The Dominion Horticulturist orders most of the material, such as trees, shrubs, herbaceous plants and seeds required for the Branch Farms and Stations, and by a card index system at the Central Farm, is able to tell what is growing and what is needed at any of these Farms.

At the Central Experimental Farm, where his headquarters are, most of the experiments of previous years were continued in 1911-12 and additional experiments and new work started. One of the experiments in progress is the originating of new varieties of fruits which will prove useful over a wider range in Canada than those already available; at the same time better varieties are sought for the districts where the varieties now considered best are already grown. During the past eight years, practically 1,000 new varieties originated at the Central Experimental Farm have fruited there, of which 276 fruited for the first time in 1911. Many of these have proved very promising and over 60 of the best have been named and will be more thoroughly tested and compared with those already on the market. The work of originating new varieties for the Canadian Northwest begun by Dr. Wm. Saunders

is now included in the Horticultural Division. A number of the second crosses fruited in 1911, some of which are quite promising and are being propagated for test as to their hardiness in the prairie provinces. A large number of seedlings of the hardiest Russian apples was raised at Ottawa in 1911, and these are being sent to the prairie Farms to have their trunks developed, if possible, in that climate, in the hope of obtaining hardy varieties of large apples by this means.

Considerable attention is also being paid to the improvement of the Native and American plums, and some excellent new varieties fruited in 1911.

New and chance seedling fruits of different kinds are sent to the Horticulturist every year by persons on whose places they originated, and some very promising new things are being brought together and tested by this means.

In addition to the origination and testing of new varieties in the ways described, the newer sorts offered for sale by nurserymen are tested each year and compared with other sorts.

At the Central Experimental Farm, the dates of blooming of the different varieties of fruits have been recorded since 1895, and, as the importance of planting and mixing varieties which bloom at the same time in the orchards and other fruit plantations is now fully recognized, these records are proving more valuable every year. There was a number of inquiries for information in this direction in 1911.

The yield of each individual tree in the orchard has been recorded since 1898, and the information now available is very valuable as showing the variation in yield of different trees and how much a tree of a given variety might be expected to bear at any year after setting out. The blooming records and records of yields have, we believe, been kept for a longer continuous period here than at any other institution.

Believing that it is of the greatest importance to enable the farmers and market gardeners of Canada to obtain the very earliest strains of vegetables, the development of new and earlier strains by selection has been continued for several years. The vegetables longest selected are tomatoes, beans, corn, peas and melons, and the strains now developed of the three first are very early. The quantity of these is being increased so that they may be tested by a considerable number of growers, and eventually it is hoped they will take the place of later strains. It has been arranged to continue the work with these and other kinds of vegetables.

More attention was paid to the ornamental grounds at the Central Farm in 1911 than usual. A new border about 450 feet long extending across the northern end of the large lawn has been planted with the best perennials. A new rose garden was planted, and many new varieties were added both to the roses and to the herbaceous plants. In view of the great importance of doing as much as possible to encourage the beautifying of farmers' homes in Canada, and of having information available for those making a business of selling ornamental plants, it is hoped to make the ornamental grounds at the Central Farm, even more than it has been in the past, a source of information to those interested in the appearance, habits and relative availability of ornamental plants.

By attending meetings and giving addresses, and by means of correspondence, which has about doubled in the Horticultural Division during the past year, the Dominion Horticulturist has been also able to render much service to those interested in horticulture in Canada.

CEREAL DIVISION.

The past season was unfavourable for cereals in many parts of Canada owing to heavy rains and cool weather in some districts and excessive heat in others. Some of the experimental farms and stations suffered rather severely, and the work of the cereal breeding, testing and propagating (carried on chiefly at Ottawa, but in the later stages at the other farms also), did not make as good progress as usual. The unfavourable conditions were by no means an unmixed evil, for they served a good purpose in bringing out clearly the superiority of some of the new varieties of grain which have been bred on the experimental farms.

MARQUIS WHEAT.

Marquis wheat, which has attracted so much attention in recent years, as an early-maturing, prolific, disease-resisting variety, achieved a veritable triumph last season, especially in the province of Saskatchewan, where it surpassed the old standard variety, Red Fife, in strength of straw, earliness, yield and quality on almost every farm where it was grown.

The winning of the highest award for wheat in New York city last autumn by an exhibit of Marquis grown at Rosthern, has drawn additional attention to the merits of this variety. This success was all the more noteworthy in view of the unfavourable character of the season.

At the Indian Head experimental farm, Marquis wheat has now been grown for five years. During that period it has given an average yield of the test plots of 50 per cent more than that obtained from Red Fife, besides being of superior quality in unfavourable seasons. While this enormous difference may not be maintained in a longer test, since the five year period began and ended with a very cool season (disadvantageous to Red Fife), there can be no doubt of the much greater productiveness of Marquis. This is due partly to earliness in ripening by which it escapes some of the early frosts and partly to its less susceptibility to rust than Red Fife. In strength of straw it also shows distinct superiority in districts where long straw and consequent lodging are common.

Marquis is now generally admitted to be the best variety of wheat for almost all Saskatchewan, for Central and Northern Manitoba and for large areas in Alberta. Its value to these Provinces can scarcely be estimated. The demand for seed is far beyond the supply and nearly all the available stock was sold at good prices before the middle of the past winter. No exact figures are available as to the total acreage of Marquis grown last year, but there is every indication that it will be the chief variety in Saskatchewan in the course of a very few seasons. This shows the rapid progress which it has made when it is remembered that the original plant from which Marquis is descended was discovered in the year 1903 (at Ottawa).

OTHER NEW VARIETIES OF GRAIN.

The Dominion Cerealist is now engaged in propagating for distribution an extremely early-ripening variety of wheat to which the name "Prelude" has been given. This wheat has been tested in Manitoba and Saskatchewan as well as at

Ottawa. It ripens about two weeks before Marquis, in Saskatchewan, and has shorter straw. It has red kernels of unusually high weight per bushel and yields flour of excellent bread-making strength, though not equal in colour to Marquis or Red Fife. Prelude is not intended to supplant Marquis. It cannot be expected to give so large a crop. But is is likely to prove of very high value for those districts where Marquis cannot be depended upon to ripen before frost. Prelude is a cross-bred variety of rather complex pedigree and was bred at Ottawa by the Dominion Cerealist.

The Arthur pea has again demonstrated its splendid crop-producing power in almost all districts. Its decided earliness gives it a distinct advantage over other sorts. Arrangements have been made to grow a considerable quantity of this valuable field pea for distribution and sale next year.

The new selected Manchurian barley is also giving much satisfaction, and is evidently an introduction of great value.

BUILDING FOR THE CEREAL DIVISION WORK AT OTTAWA.

The obvious need of a proper building for the cereal work, including the seed distribution, at Ottawa has been provided for during the past year. The new building contains a granary, threshing room, grain cleaning and bagging rooms, writing room, milling room, &c. An electric motor has been installed for power, and improved grain cleaning machinery has been purchased. Much better work is now possible under the improved conditions.

SEED DISTRIBUTION.

Further efforts have been made to increase the efficiency of the seed distribution both by the adoption and enforcement of more rigid regulations and by the raising of the standard of the seed sent out, the object in view being to furnish seed of the best varieties and of the highest quality to as large a number of careful farmers as possible. It is of course impossible to provide unlimited quantities of the very best seeds, and some restrictions are therefore essential as to the manner in which the distribution is conducted. While the new regulations have not been put in force without objections from some quarters, there is no doubt that they meet with the hearty approval of the most careful and thoughtful farmers. It is believed that the value to Canada of the seed distribution is being very materially increased by the measures which have been adopted.

BREEDING AND SELECTION OF CEREALS.

This branch of the work of the Cereal Division, which is of fundamental importance, is being continued; though a larger portion of time than formerly is now devoted to the propagation of new varieties at the various experimental farms and the study of their suitability for the various climates of Canada.

Some hundreds of new cross-bred kinds of wheat, oats, barley and peas are undergoing preliminary tests at Ottawa. These include some varieties of great promise which will be tested as soon as practicable in the various localities for which they are

intended. Breeding and selection are also being carried on with beans and flax. The latter promises to be a particularly productive branch of the work, in view of the large acreage devoted to flax in Canada.

DIVISION OF CHEMISTRY.

Since the science of chemistry furnishes much of the foundation upon which the practices of modern farming rest, it follows that with the spread of information in agricultural matters the work of this division increases in scope and influence. As heretofore, this work has been conducted with the view of rendering direct assistance to the farmer in his every day work, and in the endeavour to solve some of the many agricultural problems which call for the aid of chemistry and which are of more or less interest throughout the Dominion. The chief channel through which the farmer is directly helped is correspondence, a feature of the work that increases in importance as the years go by. Inquiries relating to soils, manures, fertilizers, feeding stuffs, spraying materials, &c., &c., are daily received and in the answering of them the division undoubtedly does a valuable educational work. Accompanying these letters many samples of an agricultural nature are sent in for examination. The complete analysis of all such samples would be impossible, and in many cases quite unnecessary —but as opportunity permits they are submitted to such an analysis as the occasion warrants and a report furnished as to their value and uses.

Of the investigations studied during the past year, some of the more important may be briefly discussed, as follows:—

CANADIAN SOILS.

In continuing the work on Canadian soils there has been examined a series from the district of the Lower Saskatchewan river (The Pas), collected by Wm. Ogilvie, Esq., D.L.S. The data obtained show that the area involved (between 2,000,000 and 3,000,000 acres), is one that has considerable agricultural possibilities and that with effective drainage much soil of excellent quality, suitable for farm crops in general, would result.

A large number of soils from the district of the Southwest Miramichi River, New Brunswick, have been examined and reported on. From the chemical and physical determiantions it would seem that the district represented is more suited to forestry than to general agriculture.

Soils from virgin or unoccupied areas in Nova Scotia, Manitoba, Saskatchewan, Alberta and British Columbia, have also been analysed. The data obtained have added considerably to our knowledge of the native soils of these provinces and have proved of value in advising those who had settled upon these lands in the matter of their rational treatment and up-keep.

CONSERVATION OF SOIL MOISTURE.

Of the various factors that must be considered in any discussion of soil fertility, none is of greater importance than soil moisture. Without an adequate supply of

water during the growing season the crop cannot attain its maximum growth, no matter how rich the soil may be. Drought more frequently than lack of plant food, limits the yield. The significance of learning the best means of conserving moisture within the soil will therefore be obvious, especially for districts subject to seasons of scanty rainfall. The influence of certain cultural methods and systems of rotations on the soil's moisture content is a subject of particular interest to western farmers, and one that for many years has received attention and study from this division. During the past season the work has been continued and extended, the areas devoted to the various experiments in cultural operations on the Experimental Farm at Brandon, Indian Head, Rosthern and Lethbridge, affording a new and enlarged opportunity for obtaining useful data. Periodic determinations have been made of the moisture in the soils of the plots devoted to the experiment in prairie breaking, depth of ploughing, summer-fallowing, green manuring and the use of soil packers. This work must be continued for a number of years, to eliminate the effect of seasonal variations, and to ascertain the influence of different rotations, so that final reporting upon these results will be deferred. It may be stated, however, that despite the fact that the past season at many of the points of experiments has not been such as to furnish any outstanding results, the data do show that the moisture content of a soil may be distinctly modified by the nature of the culture and that surface cultivation is a most valuable means towards moisture conservation. A large number of experiments in 'depths of ploughing' and in 'packing' were made, but as yet the evidence is inconclusive as to a general practice that would be the most effective as regards the conservation of moisture in the soil; probably the nature or texture of the soil will be found to largely modify the culture necessary to that end.

NATURALLY-OCCURRING FERTILIZERS.

In various parts of the Dominion materials occur that can be used to advantage in the improvement of soils. These include marls, gypsum, swamp muck, peat, tidal deposits, sea-weed and other naturally-occurring substances possessing fertilizing value. Additional information has been gained during the past year respecting many of these substances, as occurring more particularly in the Maritime provinces and Quebec.

FODDERS AND FEEDING STUFFS.

Further analyses have been made of early and late cut hays. The examination of certain samples from Northern Alberta show that hay cut from grass before the rainy season and cured without rain or frost proved vastly superior to that cut later in the season and after rain and frost.

Samples of ensilage from Indian corn and from wood pea, from La Trappe, Quebec, were compared, with the results that the latter was found twice as rich in albuminoid substances as the former, and hence of greater feeding value. Clover ensilage from a crop cut in the early blossoming stage at Agassiz has also been analysed, establishing its high nutritive qualities for stock feeding.

Three varieties of broom corn grown on the Central Farm have been analysed at two stages of growth. Compared with the fodder of Indian corn, this material is

distinctly inferior in containing less protein and more fibre. It would also appear from United States authorities to be less palatable and digestible than corn fodder, so that its growth simply as a forage crop could not be recommended, though as a by-product in the production of broom-making material, its nutritive value might be taken advantage of. That cut at the earlier stages was the more nutritious.

In order to furnish information to inquiring farmers and stock feeders, a number of cattle feeds—chiefly milling and factory by-products—have been examined and reported upon.

THE COMPOSITION OF WHEAT AS INFLUENCED BY SOIL AND CLIMATIC CONDITIONS.

This research was commenced several years ago, and a considerable amount of evidence has accumulated to show that the protein content of wheat of the same variety and parentage may fluctuate from year to year, according to the character of the season. From past work it would seem that conditions that lead to the rapid development of the grain tend to the formation of a high protein kernel. The excellent quality of Northwestern wheat as a class is due no doubt very largely to the fact that the climatic conditions generally prevailing in those parts are conducive to a comparative short season of growth with the rapid development and maturation of the grain.

During the season of 1911 wheat of the same stock has been grown on twelve of the Experimental Farms and Stations and the harvested grain compared, by analysis, with the parent seed.

INSECTICIDES AND FUNGICIDES.

From time to time new spraying preparations are put upon the market under proprietary names and, in accordance with the practice of the division, an effort has been made to examine such materials as they appeared with a view of determining their nature and probable value.

THE WHOLESOMENESS OF FROZEN ROOTS.

The statement having appeared in certain agricultural papers that frozen roots were poisonous to stock, an experiment was inaugurated to ascertain the correctness of the assertion. Without entering into details it may suffice to say that in a trial with swine, which lasted four weeks, frozen mangels and mangels which had been repeatedly frozen and thawed were fed with an equal quantity of meal (the animals receiving all they would eat of the mixture) and though in some of the pens the pigs made little or no gain, no impairment of health was observed.

WELL WATERS.

As in the past analyses of farmers' well waters have been made and reports in detail respecting the wholesomeness of the supply sent to those forwarding the samples. This branch of the work is directly helpful to the farming community and no doubt has effected an influence for good in respect to the very important matter of a pure water supply in rural homes.

RAIN AND SNOW.

The determination of the nitrogen compounds of rain and snow was begun in the winter of 1906-07 and has been continued without interruption since that time. It would appear that from this source the land may receive annually, per acre, about 5 lbs. of nitrogen in forms that would be directly available for crop growth.

DIVISION OF ENTOMOLOGY.

The work of this Division has comprised: The administration of the Destructive Insect and Pest Act and of an appropriation for the care of orchards on the Indian Reservations in British Columbia, the answering of inquiries and the giving of advice concerning insects affecting farm, garden and orchard crops, forest and shade trees, live stock, household and public health; the naming of collections of insects for individuals and schools, and the carrying on of investigations upon the life histories of insects and their bionomics in relation to the problems of insect control.

Under the Destructive Insect and Pest Act, measures were taken to prevent the introduction of insects into Canada in imported trees, plants or other vegetation, and to control the spread of the Brown-tail moth in Nova Scotia and New Brunswick. In addition to fumigating a large amount of imported nursery stock, over four million trees and plants imported from Europe, Japan and the New England States were inspected for the Brown-tail and Gipsy moths, specimens of both insects being found. With the co-operation of the provincial Departments of Agriculture of Nova Scotia and New Brunswick, these provinces were scouted for the nests of the Brown-tail moth. The conditions in Nova Scotia are about the same, although the infestations in certain localities were more serious; nests were found in Kings, Annapolis, Digby and Yarmouth counties. In March, 1911, the first nests were found in Charlotte County, N.B.; this season's inspection, however, up to the time of writing, has disclosed a widespread infestation in New Brunswick; over two thousand nests have been found spread over the southern portion of the province in the counties of Charlotte, York, Sunbury, Queens, Kings, and St. John. While every effort is being taken by the destruction of the winter nests to check the increase of the insect, it will be impossible to control it except by aiding and increasing the natural means of control, that is, by the introduction of the parasitic enemies of the insects. This method is being adopted on a very large scale by the United States Department of Agriculture in the New Englanad States with considerable promise of success. A beginning was made during the last summer, and, by the courtesy and co-operation of the Entomologist of the United States Department of Agriculture, with whom my officer in charge of the Division of Entomology conferred, a few parasites were imported into New Brunswick. It is hoped to carry on this work on a large scale during the coming season.

The common fruit pests have occurred in their usual abundance. Injuries to fruit by the Curculio beetles and Capsid bugs appear to be increasing and arrangements are being made to investigate these insects and their means of control. In certain districts of Quebec and Ontario, New Brunswick and British Columbia, Tent

Caterpillars were exceptionally abundant and destructive, stripping both fruit and forest trees. The Palmer Worm was reported in Ontario. Satisfactory progress has been made in the work of supervising and cleansing the Indian orchards in British Columbia on behalf of the Department of Indian Affairs.

In certain parts of Southern Alberta cutworms were very destructive especially to wheat and the total acreage ruined by them was considerable. Owing to the increase of "Silver top" in oats caused by Thrips, a minute species of insect, a study is being made of its injuries and habits; by causing sterile ears, this insect when it is abundant reduces the yield very materially. The Chinch bug was reported in Ontario and in the western part of the province, where the injuries of the White Grubs have been severe during the last few years. Swarms of the adult insects, the June Bugs, appeared and defoliated fruit and other trees.

The Potato beetle is the most commonly reported, and certainly in the aggregate the most injurious insect, affecting root crops. Experiments on the prevention and control of root-maggots were continued and the superiority of the tarred felt paper discs over other methods of protection was again demonstrated.

The investigations on the Spruce Budworm and its parasitic means of control were continued in conjunction with field observations. Material was collected from different regions in Quebec and British Columbia and the result of the season's work were sufficient to indicate that the pest would be controlled by its natural parasites, which were extremely abundant in certain localities, before the trees had been seriously injured. The westward spread of the Larch Sawfly was more serious and the importation of parasites from England was commenced. With a view to obtaining a large quantity of parasitic material the Dominion Entomologist visited the localities in England where this pest is being controlled and arranged for the collection and shipment of parasites. In view of the serious depredations which forest insects, particularly bark beetles, are causing in the forests in the various regions of Canada, an assistant entomologist has been appointed to devote his entire time to the study of insects affecting forest trees.

Inquiries are being made in reference to certain insects affecting live stock such as Ticks and Sheep Maggots. The collections of insects in the Division are gradually being arranged and determined and are proving increasingly useful.

More attention is being devoted to apiculture. Much gratification is being shown by beekeepers and others with the activity of the Division in regard to this somewhat neglected but important branch of agriculture.

Visits were paid by the Dominion Entomologist to New Brunswick and Nova Scotia in connection with the Brown-tail moth campaign. A visit was also made in April to Washington, D.C., and Melrose Highlands, Mass., for the purpose of studying the methods of the Bureau of Entomology of the United States Department of Agriculture. In December and January the Dominion Entomologist spent five weeks in England during which time conferences were held at the Colonial Office and the Board of Agriculture on matters relating to the prevention of the introduction of insect pests into Canada. The Division of Entomology has arranged exhibitions at Toronto and Ottawa and the Dominion Entomologist has delivered addresses on many occasions on insect pests and their control.

DIVISION OF BOTANY.

The sphere of work of this division has been enlarged during the year and comprises at present:

1. The identification of weeds and poisonous plants and their methods of eradication.
2. The conservation of the Herbarium and other scientific collections.
3. The control and management of the botanic garden and arboretum.
4. The trials of new crop plants like broom corn, &c.
5. The investigation and control of plant diseases.

By means of short articles in the press, the publication of bulletins, by lectures and attendance at conventions, by personal interviews, and by a large and extensive correspondence, it is sought to disseminate widely any useful information concerning the results of the work of this division. Another factor of importance is the opportunity placed at the disposal of the staff of this division to become familiar with the various conditions existing in the different provinces and districts of the Dominion. Attention is being paid, primarily, to the special requirements of farmers and fruit growers as far as these concern the work of the division.

Nearly 1,000 different plants were received from all over the Dominion for identification and advice regarding their useful or objectionable properties. Much interest has been taken in the experiment of growing wild rice (*ziania aquatica L.*) Many farmers and owners of land having suitable spots for the growth of this plant have made application for seed. It is claimed that the plant affords a good protection for water fowl, providing shelter and food, besides aiding in protecting the shores of lakes and ponds. The successful raising of seed, and the solution of the problem of preserving its power of germination would result in an additional source of income to many farmers. The seed is much asked for from England.

Considerable attention is being given to the poisonous properties of a common weed of damp and moist land, i.e., horsetail (*equisetum sp.*) Several species of this weed are found in the Dominion. They have long been known to be injurious to the health of animals, especially horses; in some instances deaths have been reported which could have been due only to the consumption of this weed. It has been found present to a considerable extent in various samples of hay received for analysis. In every case, the sender complained of a peculiar injury to his horses, and the fact that this weed was found present in more or less large quantity in the hay given to the animals speaks for itself. In one instance, from British Columbia, such 'hay' was composed of 64 per cent horsetail.

A considerable number of plants were added to the herbarium of the division. They were collected locally as well as on various trips to different parts of the country. A careful collection has been made of plants growing wild on Sable Island, among which were several hitherto unrecorded from that locality.

The collection of microscopic fungi, particularly those causing diseases in plants and others of more scientific interest, was considerably increased. These collections are very useful in the study of plants and fungi in regard to their relationship, association and economic value or importance.

The Botanic Gardens and Arboretum have been placed under the control and management of the Dominion Botanist, partly to relieve the increased responsibilities of the Dominion Horticulturist, and partly because they were thought to come more properly within the province of the former.

In connection with this work, involving several problems of economic importance, the Dominion Botanist was instructed to proceed to Sable Island, and to make inquiries as to the possible introduction of vegetation, and to continue the work begun some twelve years ago by Dr. William Saunders.

The island, which is merely a sandbank, and, as such, a menace to navigation—being popularly known as the Graveyard of the Atlantic—needs very urgently some protection by suitable vegetation. Owing to its very exposed situation, practically all of the 80,000 trees and shrubs planted twelve years ago have been destroyed by wind and the grinding powers of the drifting sand. It is thought that any aid that can be given to preserve the island will depend upon the conservation and propagation of plants growing there naturally.

In view of the fact that Canada imports annually broom corn and mnaufactured brooms to the value of about $400,000, the Dominion Botanist has paid considerable attention to the possibility of growing this crop in some localities in Canada suitable for the purpose. It is hoped from this year's experiments, which will be continued, that some variety may be found that may be useful for cultivation in certain regions. In Ottawa, the broom corn raised was nearly 12 feet high and bore brushes of considerable length, though by no means up to the standard of such corn as grown in the United States.

One of the most important phases in the work of the division is connected with the investigation of the diseases affecting the various agricultural, fruit, and vegetable crops, and forest trees. Amongst the diseases which have received attention during the past year, the following are deserving of special mention:—

Silver Leaf Disease.—This attacks a considerable number of fruit trees being, perhaps, most frequently found on apple and plum trees. Although well known in Europe it has not been reported as occurring on this continent until noticed by the Dominion Botanist in Nova Scotia in 1909, since which time it has been observed in many places in the Dominion from Nova Scotia to British Columbia, and also in widely separated localities in the United States. While the disease has not been known to occasion widespread epidemics, as is the case with some others, it is nevertheless serious since an attacked tree almost always succumbs. An article dealing with the symptoms and treatment of the disease was prepared and published in most of the horticultural journals of the Dominion, in order to put the fruit growers on their guard against it.

Phoma Disease of Turnips.—In January, 1912, a correspondent in Prince Edward Island reported that the turnip crop in certain portions of the province had been seriously affected by some disease. A specimen of an attacked root being also submitted for examination, it was found to be infected by the fungus *Phoma napobrassicae Rost.* The disease has apparently not been previously reported from Canada or the United States, but is known in several European countries and elsewhere. In

New Zealand, for example, it is a very serious enemy of the turnip crop, and its introduction into this country is certainly very unfortunate, as it would appear to be already well established.

Peach Canker.—The peach growers around St. Catharines and in many places in the Niagara district have recently been alarmed to find large numbers of their trees affected by a serious canker. This disease is now under investigation, and it is hoped that the observations and experiments that have been made and which are still being carried on will, in the near future, enable the Dominion Botanist to make appropriate recommendations for the control of the disease.

Cherry Disease in Prince Edward Island.—Reports were received during the spring and summer of 1911 of the prevalence of an epidemic disease affecting the cherry trees of the province. Towards the end of the summer a personal tour of inspection was made by the botanist to better ascertain the nature and extent of the trouble, and advice was given individually to numerous growers, and also by public addresses at fruit growers' meetings.

THE POULTRY DIVISION.

A marked feature of poultry development during the past year was the high price of new laid eggs and the better quality of poultry. This was particularly noticeable during the months of November, December, January and February, when the highest values were reached. It was very evident that the better the quality of the poultry and the fresher the eggs the better was the price paid for them. It is hoped that this increased appreciation of the best was a wholesome lesson to farmers to bring to market no birds but those of correct market type and of fine quality and eggs of undoubted freshness. With the view of aiding the farmers of the country to the production of poultry and eggs of this desirable quality and at a time of year when they are of the most value, the work of the poultry division has been directed for some years past. This was continued during the past year with gratifying success. It was emphasized by carefully-conducted experiments that prolific egg-laying fowls can only be built up by breeding from parent stock of undoubted egg laying merit. As a means of discovering the best egg layers among a number of fowls, the trap nest was found to be the most reliable. Among other determinations, it was made plain that, of the breeds tried, the most acceptable market type of fowl came from the well-known utility varieties of Barred and White Plymouth Rocks, White Wyandottes, White Orpingtons, Dorkings and Rhode Island Reds. The practice, too common among many farmers, of mating a small male bird of the Spanish family with a female of one of the utility varieties—with the object of procuring a good layer and market type combined—was found to result in neither object being attained. Other determinations proved that, in order to have quick-maturing chicks which will make early layers or market fowls, of the utility varieties, it is necessary that they should be hatched out not later than the second, or third week of April. Hitherto a great obstacle to success has been weak germs in the eggs laid in early spring. The adoption of poultry house of modern style which permit of abundance of fresh air and the conservation of constitutional vitality, has greatly tended to make early hatching

much more successful than heretofore, and it has been made very evident that, in order to ensure quick growth and early maturing, the chickens, of all varieties, require to be carefully and well fed from time of hatching until they are disposed of in the Fall season. Interesting experiments were also conducted with new styles of poultry houses of the open and cotton front plans. From the experience of last winter, it may be concluded that the entirely open front, or Tolman house, is not likely, in this district, to permit of a paying percentage of eggs being laid. A very large and rapidly growing correspondence in both English and French is evidence of the increasing interest being taken by the farmers of the country in the poultry branch of their farm work.

Details of other interesting experimental work will be found in the Annual Report of this Division for the fiscal year ended March 31, 1912.

GENERAL CROPS OF THE DOMINION.

FIELD CROPS AND LIVE STOCK OF THE YEAR 1911.

Reports on the condition of crops and live stock have again been collected monthly from agricultural correspondents throughout Canada. Summaries were communicated to the press as soon as ready, and the complete results were published in the Census and Statistics Monthly. Notes on the work of the various branches of my Department, crop reports from other countries, prices of agricultural produce in British markets and other information of agricultural interest were also included in this publication.

Statements of the condition of the Canadian crops and estimates of yield were forwarded regularly to the Canadian Correspondent of the International Institute of Agriculture for telegraphic transmission to Rome, while notes from the Institute's Bulletin of Agricultural Statistics and other publications were inserted in the Census and Statistics Monthly with Canadian equivalents of the metric weights and measures.

Upon the whole the agricultural season of 1911 proved favourable, though prolonged drouth in the East and a cold, wet ripening period, with storms and frost in the West, depreciated quality and lessened the yields which early conditions had promised. Excepting in the case of fall wheat the figures denoting condition, as returned during the season of growth by the crop-reporting correspondents of the Census and Statistics Office, remained high for cereals, being over 90 per cent of the standard up to June 30, and, except for rye, over 80 per cent up to the time of harvest.

The final estimates of the production and value of the principal field crops of Canada in 1911, based upon returns made by correspondents on December 31, with records of areas obtained by the census of 1911, were published as in the following table:—

Crops.	Area.	Yield per Acre.	Total Yield.	Weight per Measured Bushel.	Average Price $	Total Value.
	Acres.	Bushel.	Bushel.	Lb.	Per. Bush.	$
Fall wheat	1,172,119	22·19	26,014,000	61·12	·825	21,461,000
Spring wheat	9,201,839	20·63	189,837,300	59·21	·611	117,106,000
Oats	9,219,920	37·76	348,187,600	34·65	·364	126,814,000
Barley	1,404,352	28·94	40,641,000	46·97	·566	23,004,000
Rye	142,571	18·89	2,694,400	55·11	·774	2,086,000
Peas	287,135	15·80	4,536,100	59·58	1·025	4,647,700
Buckwheat	359,367	22·69	8,155,500	47·32	·641	5,232,000
Mixed grains	559,991	29·78	16,679,000	45·10	·607	10,127,000
Flax seed	682,622	11·52	7,867,000	53·29	1·507	11,855,000
Beans	60,630	19·06	1,155,600	58·30	1·920	2,219,000
Corn for husking	316,104	59·39	18,772,700	50·31	·648	12,171,900
Potatoes	459,097	143·82	66,023,000	.....	·60	39,358,000
Turnips, &c	227,141	373·92	84,933,000	.....	·23	19,541,000
		Tons	Tons		Per Ton	
Hay and clover	7,903,242	1·61	12,694,000	.....	11·55	146,596,000
Fodder corn	285,321	9·92	2,577,200	.....	4·84	12,469,000
Sugar beets	20,878	8·66	177,000	.....	6·58	1,165,000
Alfalfa	101,781	2·24	227,900	.....	9·868	2,249,000

NOTE.—The figures of flaxseed represent revised estimates published in the Census and Statistics Monthly of April, 1912.

This table shows that a total area in Canada of 32,404,110 acres yielded in 1911 a harvest which, computed at local market prices, had a value of $558,099,600. For wheat, Canada's principal cereal crop, the total production was estimated at 215,851,000 bushels, with a value of $138,567,000, from an area of 10,373,958 acres. This is the largest wheat crop in the history of the Dominion both as regards area and total production. Except as regards flaxseed the areas in the table represent the totals of the schedules obtained from every agricultural occupied by the census of 1911, and the total yields are calculated therefrom according to the estimated yields per acre as returned by the crop-reporting correspondents of the Census and Statistics Office. The figures of 1911 possess therefore a greater degree of statistical accuracy than can be attributed to the estimates of 1908, 1909 and 1910, published on page 36 of my predecessor's report for 1910-11, the latter being calculated from the areas as estimated by correspondents. It may, however, be mentioned that the area and yield of wheat in 1911 exceed by over 1,000,000 acres and by 65,861,000 bushels the estimated area and yield of 1910.

Data as to the numbers of live stock in Canada were collected from correspondents on June 30, and the following table gives the estimated numbers of horses, cattle, sheep, and swine for 1911 and the three previous years 1908-10.

Live stock.	1911.	1910.	1909.	1908.
	No.	No.	No.	No.
Horses	2,266,400	2,213,199	2,132,489	2,118,165
Milch cows	2,876,600	2,853,951	2,849,306	2,917,746
Other cattle	4,210,000	4,260,963	4,384,779	4,629,836
Sheep	2,389,300	2,598,470	2,705,390	2,831,404
Swine	2,792,200	2,753,964	2,912,509	3,369,858

The condition of live stock in Canada has remained generally satisfactory throughout the year.

The compilation of the census records of live stock in Canada was not completed at the end of the fiscal year.

This year in reporting to the International Institute of Agriculture it was possible to adopt the principle of the system recommended by the Institute. Under this system the condition of growing crops is expressed by numbers in a percentage scale wherein 100 represents the promise of a yield equal to the average yield of the previous ten years, supposing the crop not to be subjected to the effects of any extraordinary phenomena up to the time of harvest. As however the Canadian crop-reporting service only commenced in 1908, the average used was that of the three years 1908-10. In the returns of correspondents to the Census and Statistics Office the condition is expressed in the percentage of a standard represented by 100, and it was therefore necessary to convert from one system to the other in reporting to the Institute. The reports for the principal cereals (wheat, barley and oats) as thus converted anticipated yields of from 6 to 14 per cent above the three years' average. In the final results, as estimated at the end of December, the yields of these crops were above the average by 18 per cent wheat, 7 per cent barley and 10 per cent oats.

COST OF GRAIN PRODUCTION IN CANADA.

During February the aid of the crop-reporting correspondents of my department was sought for the purpose of instituting a statistical inquiry into the average cost of grain production in Canada and of the revenue derivable therefrom in the season of 1911. The inquiry was limited to wheat, oats, barley, corn and flax, and the schedules issued to correspondents requested for each of these crops information as to the average cost per acre of the different operations of field husbandry, the yield and value of the produce, the kind of previous crop, the value and disposal of straw and flax fibre, the value of land and the prevailing rate of interest for money borrowed upon its security. The complete results of this inquiry, with average costs, revenues and profits per acre by provinces, were published in the Census and Statistics Monthly for March, 1912. The following are the items of cost, revenue and profit per acre for the Dominion as a whole:—

Items.	Fall wheat.	Spring wheat.	Oats.	Barley.	Flax.	Corn for husking.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Preparation	3.93	3.10	3.03	2.97	3.08	4.31
Seed	1.62	1.74	1.27	1.34	1.51	.88
Seeding	1.00	1.00	.91	1.00	.88	3.37
Cultivation						2.98
Harvesting	1.72	1.55	1.58	1.54	1.28	3.18
Threshing	2.09	2.32	2.68	2.25	2.60	3.52
Wear and tear of implements	.39	.48	.45	.42	.42	.54
Rental value	2.82	2.68	2.69	2.67	2.75	3.10
Total	13.57	12.87	12.61	12.19	12.52	21.88
Value of produce	20.64	16.93	16.69	17.87	19.85	32.12
Profit	7.07	4.06	4.08	5.68	7.33	10.24

These figures are averages calculated from upwards of 1,000 effective replies from correspondents who are themselves practical farmers, including a number specially selected by the superintendent of the Dominion Experimental Farms.

HEALTH OF ANIMALS BRANCH.

The officers of this branch have, as usual, been busily engaged during the year just past. The statistics furnished in the special report of the Veterinary Director General and Live Stock Commissioner indicate the progress that has been made in securing control of the diseases dealt with under the provisions of the Animal Contagious Diseases Act.

Glanders is now well under control in every province of the Dominion with the exception of Saskatchewan, where a determined effort is being made to cope with this exceedingly troublesome disease. A large force of inspectors was detailed for constant duty in this province, with the result that 722 horses were found to be diseased, and were slaughtered, as compared with 552 in the previous year. The enormous importations of American horses and the rapid growth of settlement over a large area are the two most difficult factors in the eradication of this disease. In the other provinces the number of horses slaughtered, 123, was practically the same as the preceding year.

Dourine or Maladie du Coit has shown a gratifying decrease, the number of horses quarantined in Alberta, the province which first occupied the attention of the department in this connection, being reduced from 600 to 100, and the animals slaughtered from 40 to 12. Outbreaks have unfortunately been detected in Saskatchewan, resulting in the slaughter of five animals, and every effort is being made to eradicate the disease which, from its insidious nature, is most difficult of detection. Dr. Watson, one of the Pathologists of this branch, who has devoted a great deal of his time to the study of this disease at the Lethbridge Quarantine Station, has quite recently returned from a visit to the continent, where he familiarized himself with the most modern and improved technique for the diagnosis of this treacherous disease. With the knowledge thus gained, and the advantages derived through this opportunity of

comparing his diagnostic methods with those of continental authorities, it will now be possible to arrange to put into practical effect the latest determinative methods for the detection of dourine in infected animals which show no manifestations of disease.

Mange of horses and cattle still demands attention in the range country, where the facilities for transmission of the disease are so apparent among animals running at large. Satisfactory progress, however, is being made, and I have every hope of being able to reduce the infected areas, which are under quarantine restrictions, in the not far distant future.

Sheep Scab shows a gratifying decrease, the only outbreaks during the year being in the province of Quebec, where 41 animals were found to be affected. The animals comprising these outbreaks grazed together on the same pasture during the summer months, which limited very materially the infected area. The various premises where they were housed during the winter season have been repeatedly visited, inspected and thoroughly disinfected. The most stringent precautions were taken to ensure the prompt eradication of this disease, as well as to prevent the possibility of spreading infection. Sheep imported are closely watched, and every precaution taken to guard against the introduction of the disease from outside our boundaries.

Hog Cholera has, I regret to say, made its appearance to a considerable extent in all provinces west of Quebec, the infection having been introduced in every case by the feeding of hogs on uncooked garbage and hotel swill. 4,247 hogs were slaughtered, as compared with 1,346 during the previous year, most of these being in Ontario and Manitoba. In view of the source of infection of these outbreaks it was found advisable to amend the Hog Cholera Regulations, with a view to restricting the feeding of raw garbage. Compensation may now be forfeited in outbreaks traced to this cause, in cases where the owner persists in feeding this undesirable material after having been duly warned. All possible steps are now being taken to advise hog owners to thoroughly cook garbage before feeding, which I hope will have the desired effect of preventing or very materially limiting losses from this disease.

Rabies has still caused some anxiety in Ontario, where some 436 animals were quarantined as suspects or contacts. No other province was infected during the year, and stringent quarantine and close attention to all cases is bringing about the desired result. It has not, however, been found necessary to put into effect a general muzzling order, as with few exceptions the quarantine restrictions have been properly observed, and in many cases the owners have preferred to destory their dogs to keeping them under restrictions for lengthy periods.

Dr. Seymour Hadwen has been engaged in the work of investigating the nature and cause of Redwater among cattle in British Columbia, and full details of the result will be found in the Report of the Veterinary Director General. It is gratifying to learn from the results so far obtained that they do not point to piroplasma infection as the causative agent, but that it is more probable the ingestion of some species of plant life growing on uncultivated lands produce the symptoms and lesions found in this disease. Special efforts are also being made to collect and identify ticks found in this province, with a view to isolating and obtaining special knowledge regarding those which may play an active part as carriers of infection of disease. Dr.

Seymour Hadwen has had the advantage of special training in this work under Prof. Nuttall of Cambridge, and it is therefore reasonable to expect satisfactory results in due course.

Dr. Evans has been temporarily placed in charge of the Branch Biological Laboratory at Lethbridge during the absence of Dr. A. Watson, who has spent the winter in France and Germany in a study of laboratory methods at the various scientific centres.

It has still been found impracticable to put into operation any special measures for the control and eradication of tuberculosis, but an educational attitude has been taken. With this object in view a special effort has been made to distribute the pamphlet specially prepared by the International Tuberculosis Commission, for lay men, many thousand copies having been sent to stockmen all over the Dominion. I am in hopes that by bringing the seriousness and prevalence of this disease vividly before them they may in the near future realize fully the great menace to human life which exists through the maintenance of tuberculous herds. While I fully appreciate the great importance of taking suitable measures; I am satisfied that a united co-operation of all stockmen is essential before it is practicable to make any definite advance in this direction. Meanwhile every possible advantage is being taken to educate the public in all matters relating to this disease, with a view to obtaining concerted action at the earliest possible date.

Anthrax. A few outbreaks of this disease have been dealt with in old infected centres, but fortunately with the exception of an outbreak in sheep at Lethbridge, no new areas have become infected. Anthrax and Black Quarter vaccines are prepared at the Biological Laboratory connected with this Branch and are procured upon application by stockmen for the very reasonable sum of five cents per dose.

The enforcement of the regulations with regard to the cleansing and disinfection of stock cars, stockyards and cattle markets has been thoroughly attended to and a comparatively high standard has been reached.

The quarantine service along the boundary has been kept up to strength and improvements made in the accommodation provided for stock as fast as time and means would permit.

THE MEAT INSPECTION DIVISION.

The Meat Inspection Division of this branch has gradually extended its operations, many new establishments engaged in export trade having been placed under the supervision of the inspectors.

While, approximately, an increase of fifty thousand sheep and lambs and four hundred thousand swine, has been slaughtered under inspection, practically no difference is shown in the number of cattle killed.

An increase in the local demand for meats and meat food products bearing the inspection legend testifies to the appreciation by the general public of the work carried on under the operations of the Meat and Canned Foods Act. I feel satisfied that this demand, if encouraged, could be considerably extended by the managers of establishments placing more prominently before their customers the fact that such meats and meat food products as bear the crown, the words 'Canada Approved' and the official

number of an establishment, are from animals free from disease, and that their preparation and cure have been carried on in a sanitary manner.

The officers engaged in carrying on this trying and arduous work are to be commended for the faithful and loyal manner in which they have performed their duties, which entail long hours of labour under what cannot be considered the most enviable conditions.

The supervision in connection with the canning of fruits, vegetables and milk is shown by the improvement in the quality of these foods and their increased consumption, and I may say that the advancement in the sanitary conditions of the canning factories is fully up to our expectations.

ARCHIVES.

A report of the operations of this Branch has been made by the Dominion Archivist and has been printed separately as an appendix to this report.

PUBLICATIONS BRANCH.

The Publications Branch has been organized for the purpose of dealing with the International Agricultural Institute, to which Canada is one of the adhering countries, and with the distribution of the publications of the department.

THE INTERNATIONAL AGRICULTURAL INSTITUTE.

By the beginning of 1911 the different services of the International Agricultural Institute at Rome were completely organized and in full operation. The information collected by these services is published in four monthly bulletins: 'Bulletin of Agricultural Statistics,' 'Bulletin of Economic and Social Intelligence,' 'Bulletin of Agricultural Intelligence and of Plant Disease,' and 'Bulletin of Commercial Statistics.'

The 'Bulletin of Agricultural Statistics' furnishes information concerning area, production, and condition of crops in the fifty different countries of the world which adhere to the institute. This information is based on official data supplied to the Institute by the governments of these countries. In addition to the monthly bulletin and the supplements which are often issued, the Institute, on the date of publication, telegraphs a summary of the important contents of the bulletin to the governments of the countries. This feature is of special value to countries which, like Canada, are distant from Italy and receive the bulletin from twelve to fifteen days after its publication at Rome.

'The Bulletin of Economic and Social Intelligence' deals with agricultural co-operation and association, insurance, credit and economic questions relating to agriculture. During the past year there have been published in it detailed accounts of the splendid systems of agricultural organization in Great Britain and Ireland, United States, Germany, Denmark, France, and other European countries.

'The Bulletin of Agricultural Intelligence and of Plant Diseases' consists of summaries and extracts from reports, bulletins and periodicals, both official and private. The articles embrace agricultural chemistry, botany, the cultivation of crops, rural engineering, live stock and live stock products, agricultural industries and machinery, plant diseases, and destructive insects. Several hundred of the most

important agricultural periodicals and bulletins of all the adhering countries are therein reviewed or summarized, and an indication of the sources of information is given so that the original article may be procured if it is available.

'*The Bulletin of Commercial Statistics.*' At the General Assembly of the International Agricultural Institute held in May, 1911, which was attended by Hon. Senator Boyer and the Canadian Commissioner of the Institute as the delegates for Canada, it was decided to inaugurate on the first of July, 1912, a regular service of information on statistics concerning the trade in leading agricultural products. This service will comprise statistical information as to visible stocks of cereals, imports and exports, as well as the weekly prices in the principal markets. The reports as to stocks will refer to wheat, rye, barley, oats and corn only, while those relating to imports and exports and prices will also include rice and cotton. Meanwhile, the Institute in the opening months of 1912 started this service tentatively by means of a bulletin intended for the preliminary period not for publication but only for the use of the adhering governments and the members of the Permanent Committee of the Institute. The 'Bulletin of Commercial Statistics' will be started as an authorized publication of the Institute on the first of July, 1912, and will thereafter be published regularly every month.

It is the duty of the Canadian Commissioner of the Institute, on the one hand, to furnish to the Institute all the data needed concerning Canada for the various publications. Some of this information is obtained from other branches of this department, and from other departments of the federal government. Some consists of information summarized from the publications of the federal and provincial governments, from the reports of large agricultural associations and the principal periodical publications. Monographs on agricultural organization and on agricultural education in Canada have been prepared and forwarded for publication.

It is, on the other hand, the duty of the Canadian Commissioner, to make the information published by the Institute available to as many Canadian agricultural readers as possible. Only a few of the original Institute publications can be obtained for distribution in Canada and these are communicated to the agricultural departments of the Dominion and of the provinces, and to the agricultural colleges. In order to extend the benefit of the information to the agricultural press, the graduates of agricultural colleges, well-read practical farmers, agricultural economists, boards of trade, bankers, shippers, &c., it has been deemed necessary to issue monthly a bulletin called 'The Publications of the International Agricultural Institute.' This Canadian bulletin contains such portions of the contents of the four Institute bulletins as are deemed of interest and value to Canadians. Summaries are made of articles too lengthy for reproduction. As a supplement to this bulletin, multigraph sheets are issued whenever a cablegram crop report is received from the Institute or other important news concerning the world's crops has come to hand. These are promptly sent to the agricultural press and persons particularly interested.

The figures concerning area and production of crops are in the original bulletins stated according to the metrical system of weights and measures. In the Canadian bulletin, for the purpose of making the statistics readily intelligible to Canadian read-

ers, hectares and quintals are converted into acres and bushels in accordance with the Canadian legal standards.

For the Commissioner's work in furnishing to the Institute the requisite information concerning Canada and in utilizing for the advantage of Canadians all the information collected and published by this Agricultural Information Bureau, a properly equipped library has become necessary. The library of the Publications Branch comprises all the Canadian publications relating to the objects of the Institute, whether federal, provincial, official or private; the federal and provincial statutes; the publications of the United States Department of Agriculture; of the United States Department of Commerce and Labour; of 42 United States Experiment Stations, and 31 State Boards of Agriculture; and similar publications from Great Britain and Ireland, Australia, India, France, Italy, Denmark, Belgium, Norway, Sweden, Argentina, Newfoundland, Jamaica, South Africa, Paraguay, New Zealand, Russia and Austria-Hungary.

The library cards published by the library of the United States Congress are used as a means of classifying the publications in the library and is a pretty complete bibliography of agricultural works published in any country in any language. The Publications Branch has over 50,000 of these cards, 10,000 of which represent the publications of the United States Department of Agriculture. The cards are being arranged in alphabetical order by subject and author, and are being numbered according to the Dewey Decimal system of classification as adapted by the International Agricultural Institute to agricultural publications. These cards, although primarily for the use of the Publications Branch may, when completely classified, be utilized to advantage by other officials of the federal Department of Agriculture or by other agricultural students, writers, and investigators in Canada.

DISTRIBUTION OF PUBLICATIONS.

Before the distribution of publications for the various branches of the department could be undertaken, a large amount of preliminary work had to be done. Until the middle of January when adequate quarters were made available, the small staff employed were fully engaged in getting the several lists in order, addressing envelopes for some of the branches, mailing publications pertaining to the International Agricultural Institute, and multigraphing and sending out cabled statistics relative to the world's crops.

The several lists, numbering some twenty-seven including about 150,000 English and Franch names when taken over, were found to be classified alphabetically within provinces. This arrangement was satisfactory so far as an office record was concerned, but it was not well adapted to revision purposes. After careful consideration, it was decided to classify the names by constituencies further subdivided by post offices, and names within them, arranged alphabetically. This classification was applied to all except a small number of special lists not adapted to this treatment.

In most of the branches the addressing of envelopes was done by hand. In two cases only—the Fruit list of the Dairy and Cold Storage Branch and Experimental Farm List—the envelopes were addressed more or less satisfactorily by mechanical

contrivances. After a full investigation of the merits of several systems a machine that prints from metal stencils was decided on and procured. To use this machine it was necessary to have a stencil made for every name on every list. This has been done and the stencils so arranged as to form a readable index so as to be easily revised as required.

As was expected it was found that in many cases the same name appears on different lists. In order to readily locate such names when a change of address was ordered, a card index has been revised which shows a complete list of every name on all the lists and to which and how many of the lists each belong. Thus a personal record is kept of each reader, in such manner that the branch knows what publications each has been reading. Thus the branch can at a glance recognize the reader's place of residence (post office and county) and consequent needs, and be in a position to judge whether any particular agricultural centre is or is not adequately supplied with the department's publications. Good progress has been made in preparing this index which, it is hoped, will be available for use as soon as the office equipment is completed.

Commencing in May this branch addressed monthly the mailing lists of the Fruit Division of the Dairy and Cold Storage Branch and of the Census and Statistics Monthly. It also sent out all through the year the publications received from the International Institute as well as the Canadian bulletin entitled 'The Publications of the International Agricultural Institute.' The Canadian bulletin issued monthly was sent to about 7,000 addresses.

From month to month reports of condition and supplies of the world's crops, cabled by the International Institute, have been promptly multigraphed and sent out to a large list of interested persons including bank managers, grain exchanges, boards of trade, newspapers and others.

Since early in the year 1912 when this branch moved into its present quarters, the general distribution of the publications of the department have been undertaken.

The publications thus sent out included 75,000 copies of the report of the Experimental Farms for 1911; 60,000 copies of the Annual Experimental Plot Bulletin; four publications of the Seed Branch involving 95,000 copies; 12,000 copies of the report of the International Commission on the Control of Tuberculosis; and 2,000 copies of the Live Stock publication, Report No. 3 of the Record of Performance.

The experience of the few months that the Distribution Division of the Publication Branch has been in operation amply demonstrates the wisdom of the consolidation of this work. Under the old system of hand addressing, individual branches at times found it necessary to keep employed for a shorter or longer period from three or four to half a dozen or more clerks addressing, filling and sealing envelopes. Under the new system an addressing machine run by one man is able to accomplish as much as twelve industrious penmen. From time to time as occasion requires, other labour-saving machines will be introduced. The advantage of this, which would not have been practicable under the old system, will be appreciated when it is understood that about one and one quarter million pieces of printed matter are mailed by the department in the course of a year.

III.—PATENTS OF INVENTION.

The following tables show the transactions of the Patent Office, Department of Agriculture, from April 1, 1911, to March 31, 1912:—

Applications for Patents.	Patents and Certificates Granted.			Caveats.	Assignment of Patent.	Notices under Section S.
	Patents.	Certificates.	Total.			
8,293	7,399	1,113	8,512	348	3,725	980

Detailed Statement, Patent Office Fees.

Month.	Notices.	Patents.	Assignments.	Certified Copies.	Caveats.	Sundries.	Subscriptions.	Total.
1911.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
April	168 75	16,527 35	771 90	143 95	206 00	11 75	13 15	17,842 85
May	162 00	16,602 80	676 60	220 75	190 00	11 75	97 40	17,961 30
June	143 00	16,441 65	635 00	261 89	170 25	8 00	150 34	17,810 13
July	152 00	14,600 20	597 00	282 45	130 00	15 00	29 55	15,806 20
August	174 00	15,426 35	666 50	208 50	145 00	14 00	28 20	16,662 55
September	144 00	14,215 90	625 00	216 60	110 00	0 25	28 00	15,339 75
October	133 00	15,194 75	748 25	312 05	117 00	27 00	30 20	16,562 25
November	142 50	15,838 10	670 00	246 00	130 00	12 00	14 00	17,052 60
December	119 00	15,361 70	676 15	194 60	175 00	7 00	19 20	16,552 65
1912.								
January	170 00	15,675 75	618 25	286 25	170 00	24 60	32 80	16,977 65
February	211 00	17,571 90	893 90	275 10	214 90	16 20	18 20	19,201 20
March	240 00	18,282 40	793 00	205 35	170 00	45 70	257 15	19,993 64
	1,959 25	191,738 85	8,371 55	2,853 53	1,928 15	193 25	718 19	207,762 77

The Canadian patentees were distributed among the provinces of the Dominion as follows:—

Ontario.	Quebec.	British Columbia.	Manitoba.	Alberta.	Saskatchewan.	Nova Scotia.	New Brunswick.	Prince Edward Island.	Yukon.
531	233	97	72	56	47	30	17	0	0

Patents issued to residents of Canada, with the ratio of population to each patent granted:—

Provinces.	Patents.	One to every.
British Columbia	97	4,046
Ontario	531	4,752
Manitoba	72	6,328
Alberta	56	6,690
Quebec	233	8,595
Saskatchewan	47	10,477
Nova Scotia	30	16,411
New Brunswick	17	20,699
Prince Edward Island	.....	.....
Yukon	.....	.....

NATIONALITY OF FOREIGN INVENTORS.

Countries.	1908.	1909.	1910.	1911.	1912.
United States of America	5,030	4,602	5,021	4,885	4,997
Great Britain	313	346	392	359	506
Germany	214	215	241	304	336
Australia	76	58	60	77	99
France	91	59	75	97	108
New Zealand	31	36	37	33	46
Sweden	46	40	39	54	52
Belgium	18	17	20	25	20
Austria	14	33	23	20	24
Italy	14	10	8	12	6
Switzerland	13	11	12	26	23
Denmark	29	8	8	5	14
Transvaal	6	12	12	16	10
Hungary	8	5	7	6	6
Russia	5	4	14	18	6
Norway	13	9	18	20	17
Newfoundland	4	1	2	3	1
Netherlands	0	4	0	0	.....
Mexico	4	4	11	7	10
Cape Colony	0	1	0	3	4
Cuba	3	0	1	5	1
Spain	0	2	1	3	.....
Chili	0	1	0	1	.....
Finland	5	1	0	1	.....
Portugal	0	1	0	0	.....
Roumania	0	1	0	1	1
Grand Duchy of Luxemburg	2	1	0	0	.....
Algeria	1	0	0	1	.....
Japan	3	1	2	0	2
India	1	0	0	5	3
Natal	1	0	0	0	1
Nicaragua	1	0	0	1	.....
Brazil	1	0	0	2	1
Turkey	1	0	0	0	.....
Poland	1	3	2	0	.....
Holland	10	0	2	11	8
Argentina	.....	4	5	1	1
Panama (Canal Zone)	.....	2	0	0	3
Egypt	.....	.....	1	1	.....
Southern Rhodesia	.....	.....	1	.....	.....
Peru	.....	.....	.....	.....	3
Hawaii	.....	.....	.....	.....	3
Venezuela	.....	.....	.....	.....	2
Trinidad, W.I.	.....	.....	.....	.....	1
Porto Rico	.....	.....	.....	.....	1

Statement of the number of patents issued under the Act, on which the fees are paid for periods of six, twelve or eighteen years, at the option of the patentee; and of patents on which the certificates of payments of fees were attached after the issue of patents originally granted for periods of six and twelve years.

Period for which Fees were paid on First Issue.			Patents on which Certificates were attached after issue.		Reissues.		
6 years.	12 years.	18 years.	6 years.	12 years.	6 years.	12 years.	18 years.
7,368	4	29	1,073	40	12	1	1

Comparative Statement of the transactions of the Patent Office from 1872, when foreign applications were first admitted, to 1912, inclusive.

Year.	Applications for Patents.	Patents and Certificates Granted.			Caveats.	Assignments of Patents.	Fees received.
		Patents.	Certificates.	Total.			
							$ cts.
1872	752	671	.....	671	184	327	18,651 65
1873	1,124	1,016	10	1,026	171	547	28,889 64
1874	1,376	1,218	27	1,245	200	711	32,962 48
1875	1,418	1,266	57	1,323	194	791	33,380 82
1876	1,548	1,337	46	1,383	185	761	34,429 38
1877	1,445	1,277	75	1,352	168	841	33,656 30
1878	1,428	1,172	96	1,268	172	832	31,992 42
1879	1,358	1,137	101	1,238	203	728	30,868 88
1880	1,601	1,252	156	1,408	227	855	38,334 99
1881	1,956	1,510	222	1,732	226	907	48,083 95
1882	2,266	1,846	291	2,137	198	955	55,854 79
1883	2,641	2,178	291	2,469	242	1,052	67,625 48
1884	2,681	2,456	167	2,623	238	1,772	63,257 47
1885	2,518	2,233	214	2,447	222	1,075	62,176 23
1886	2,776	2,610	250	2,860	187	1,322	67,176 23
1887	2,874	2,596	254	2,850	219	1,335	67,940 21
1888	2,747	2,257	282	2,539	240	1,159	65,246 51
1889	3,279	2,725	356	3,081	221	1,437	78,046 72
1890	3,560	2,428	369	2,797	248	1,307	84,150 78
1891	3,233	2,343	393	2,736	215	1,231	77,723 63
1892	3,176	3,417	415	3,832	242	1,500	77,216 76
1893 (Only 10 months)	2,614	3,153	292	3,445	229	1,345	63,850 19
1894	3,291	2,756	462	3,218	301	1,445	80,682 56
1895	3,387	3,074	422	3,496	343	1,550	86,358 48
1896	3,728	3,488	413	3,901	306	1,420	93,532 52
1897	4,300	4,013	284	4,297	377	1,551	102,117 92
1898	4,200	3,611	262	3,873	363	1,657	99,361 95
1899	3,305	3,151	412	3,563	311	1,467	107,261 56
1900	4,628	4,522	482	5,004	283	1,914	113,852 46
1901	4,817	4,766	551	5,317	302	2,323	120,064 37
1902	5,201	4,391	510	4,901	317	2,339	129,896 82
1903	5,912	5,673	432	6,105	328	2,384	141,363 81
1904	6,061	6,091	517	6,607	303	2,472	145,896 10
1905	6,355	6,111	536	6,647	300	2,576	152,085 45
1906 (Only 6 months)	2,857	2,378	271	2,649	137	1,232	69,700 46
1907	7,077	6,121	634	6,755	285	3,003	169,548 78
1908	7,406	6,774	744	7,518	317	2,900	178,482 49
1909	7,239	6,395	827	7,222	319	3,001	176,692 05
1910	7,789	7,223	1,010	8,233	448	3,147	194,571 54
1911	8,037	7,249	1,002	8,251	406	3,356	200,164 41
1912	8,293	7,399	1,113	8,512	348	3,725	207,762 77

The total revenue of the Patent Office for the year ending March 31, 1912, was $207,762.77.

The number of new applications for patents presented during the year was 8,293, an increase over the preceding year of 256.

The total number of reports issued by the examiners during the year was 10,934 and 14 patents were surrendered and reissued.

Out of the total number of patents granted by this office during the year there were 4,997 issued to inventors, or issignees resident in the United States, being 67 per cent of the whole issue.

This branch of my department continues to receive the official reports of patents from Great Britain, Australia, United States, Mexico and Japan, in addition to other periodicals of a scientific nature, in exchange for the Canadian Patent Office Record.

There were 1,789 patents brought under the conditions of the Compulsory License clause, section 44, of the Patent Act during the year.

The number of notices under section eight of the Patent Act was 980.

The present fiscal year shows an increase in the business of the Patent Office and in its revenue. The total amount of fees received was $207,762.77, being the largest receipts for the same period of time in the history of this branch of my department, the increase over the preceding year amounting to $7,598.36.

IV.—COPYRIGHTS, TRADE MARKS, INDUSTRIAL DESIGNS AND TIMBER MARKS.

STATEMENT of fees received by the Copyright and Trade Mark Branch from April 1, 1911, to March 31, 1912.

Months.	Trade Marks.	Copyrights.	Designs.	Timber Marks.	Assignments.	Copies.	Total.
1911.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
April	3,644 50	135 50	55 15	4 00	42 00	72 75	3,953 90
May	4,193 70	160 65	70 00	....	39 50	35 00	4,498 85
June	4,929 70	129 00	59 00	6 00	36 00	32 75	5,192 45
July	2,675 50	96 50	25 00	4 00	51 00	20 75	2,872 75
August	3,245 55	97 40	49 00	24 00	16 00	24 50	3,456 45
September	2,969 90	151 50	25 00	4 00	24 00	24 00	3,198 40
October	2,788 30	145 90	39 00	2 00	16 00	24 50	3,015 70
November	3,754 75	174 00	45 00	8 00	78 00	27 75	4,087 50
December	3,051 55	196 00	55 00	14 00	31 15	28 75	3,376 45
1912.							
January	3,163 40	162 40	45 00	4 00	34 00	43 00	3,451 80
February	4,204 40	152 50	115 00	2 00	64 15	54 75	4,592 80
March	3,955 30	158 21	435 15	2 00	62 90	17 25	4,630 81
	42,576 55	1,759 56	1,017 30	74 00	494 70	405 75	46,327 86

The particulars of the registrations made by the Copyright and Trade Mark Branch of the Department of Agriculture during the year ended March 31, 1912, are as follows:—

I. COPYRIGHTS—

Full copyrights without certificates	1,260	
Full copyrights with certificates	185	
Temporary copyrights without certificates	55	
Temporary copyrights with certificates	7	
Interim copyrights without certificates	65	
Interim copyrights with certificates	21	
Renewals of copyrights	2	
Assignments of copyrights	12	
		1,607
II. TRADE MARKS		1,212
Renewals of specific trade marks		40
Assignments of trade marks		197
III. INDUSTRIAL DESIGNS		149
Renewals		28
Assignments		9
IV. TIMBER MARKS		39
Assignments		12
Total registrations		3,293

The following table shows a comparative statement of the business of this branch from 1897 to 1911, inclusive:—

Year.	Letters Received.	Letters sent.	Copyrights Registered.	Certificates of Copyrights.	Trade Marks Registered.	Industrial Designs Registered.	Timber Marks Registered.	Assignments Registered.	Fees Received.
									$ cts.
1897	2,606	3,548	756	273	446	75	13	94	14,101 93
1898	2,576	3,453	734	275	423	136	15	114	13,535 17
1899	2,487	2,910	702	237	430	112	5	117	14,161 28
1900	2,679	3,213	893	247	447	126	22	136	14,782 53
1901	2,605	3,211	888	149	521	146	24	183	16,823 20
1902	2,687	3,257	900	196	528	164	26	222	17,703 00
1903	2,687	3,211	900	176	557	88	23	272	18,086 25
1904	2,858	3,293	1,106	228	621	107	25	118	20,647 30
1905	3,367	3,902	1,130	189	661	139	22	154	23,706 75
1906	5,340	5,193	1,228	169	1,119	125	47	282	33,107 10
1907	4,475	4,353	1,140	175	848	182	33	136	30,073 20
1908	6,647	4,980	1,416	170	892	162	44	343	37,514 00
1909	6,320	5,750	1,535	171	1,059	143	108	174	38,071 31
1910	6,411	7,688	1,699	206	1,021	118	39	286	42,153 76
1911	7,027	7,091	1,593	213	1,212	149	39	230	46,327 86

V.—PUBLIC HEALTH AND QUARANTINE.

Perhaps the most notable event in public health matters during the year has been the persistence of Asiatic Cholera in some parts of Europe, and especially in Italy.

It has shown itself this year in Arabia, Austro-Hungary, Bulgaria, Ceylon, China, Formosa, France, Hawaii, Dutch East Indies, India, Indo-China, Italy, Japan, Java, Korea, Madeira, Malta, Montenegro, Persia, Philippine Islands, Roumania, Russia, Servia, Siam, Straits Settlements, Sumatra, Tripoli, Tunis, Turkey in Asia and in Turkey in Europe.

Owing to prevalence of cholera in Italy in epidemic form, and the recent recognition of apparently quite healthy persons who are nevertheless 'cholera carriers,' it became expedient that all immigrants coming directly or indirectly from the infected districts of Europe should undergo a bacteriological examination before being allowed to enter the country. A special bacteriologist was therefore appointed to each of the ports of passenger entry on the Atlantic side—Halifax, St. John and Quebec—to be stationed at the quarantine stations guarding those ports.

The wisdom of this course was proven by the fact that amongst the healthy arrivals at Grosse Isle examined bacteriologically, two 'cholera carriers' were discovered,

held and dealt with until they ceased to be a menace to the public health of the community. These two cases, with the one mentioned in the last Annual Report, make three 'cholera carriers' found at quarantine within a few months. The first one found in November, 1910, continued to give positive evidence of still being a 'carrier' into April, 1911, and it was only in May last that he ceased to be dangerous. This persistence of his condition even under treatment from November to May shows over how wide an area and for how long he might have spread Asiatic cholera inland throughout Canada, had his condition not been recognized and stamped out at quarantine.

The ministerial order for the bacteriological examination of immigrants from infected countries was issued in July, and remained in full force until the improvement in the cholera situation abroad in November last. I was then able to modify it to apply only to immigrants on infected vessels.

Owing to the development of a case of cholera at New York subsequent to a five-day detention, the period of observation under quarantine for cholera suspects has been enlarged both by the United States and this country to a period of ten days.

Bubonic Plague has been present during the last year in Algeria, Arabia, Azores, Brazil, British East Africa, British South Africa, Chili, China, Dutch East Indies, Ecuador, Egypt, German East Africa, Hawaii, India, Indo-China, Japan, Java, Mauritius, New Caledonia, Peru, Philippine Islands, Russia, Siam, Straits Settlements, Trinidad, Turkey in Asia and Venezuela.

A case of plague was reported in Glasgow in June last, and one at Shotley, Suffolk, in November last, a sailor thought to have derived the infection from a rabbit. Cases occurred in California in July, August and September last. Plague infected rats were found in the city of Seattle up to the 21st September last, and plague infected ground squirrels in California up to the 27th October last.

Monthly supplies of Yersin's anti-plague serum are regularly received by me from the Lister Institute in London, England, and held ready to be rushed to any point should occasion arise.

With the completion of the Dominion National Biological Laboratories, which I am inaugurating, Canada's dependence on outside countries for such preventive and remedial products should happily cease.

Leprosy.—There are at this date in my Leper Lazaretto at Tracadie, N.B., twenty-two patients, twelve males and ten females. Eighteen are of French Acadian origin, two of English, one of Icelandic and one of Russian.

One death occurred during the year, and three new cases were admitted.

It has given me pleasure to sanction the gift of a small organ for the use of the patients. This must tend to relieve the monotony of their lives, and help them to forget their sufferings.

My Leper Lazaretto at Darcy Island, B.C., has not been occupied by any leper since the last deported, previous to this year.

Smallpox.—Smallpox has again prevailed as a pandemic throughout the world, during the year. It has been brought to two of my stations. To the River St. Lawrence quarantine six passenger steamships brought it, and at my William Head

station beyond Victoria, B.C., it was brought by two steamships, and a third—a coastwise passenger steamer—was permitted to be dealt with at William Head. In every case at each station the disease was stamped out at quarantine.

At the date of the last annual report, owing to the prevalence of smallpox in the neighbouring states to the south of the line, special medical inspection of persons entering across the frontier was being carried out at North Portal, Saskatchewan, and at Fort Frances and Rainy River, Ontario. Owing to the subsidence of the epidemic threatening, I was enabled to raise these temporary quarantine inspections on November 15 last.

Owing to the prevalence of smallpox in Nova Scotia and New Brunswick, temporary quarantine inspection of all arrivals from the mainland was being carried on at Georgetown, P.E.I., at the date of the last annual report. This was supplemented on the 26th of April last by the appointment of a special temporary medical inspector at the port of Summerside, P.E.I., and the enforcement of inspection at Charlottetown by the permanent quarantine officer of all arrivals from the mainland including the daily steamers from Pointe du Chêne and Pictou respectively.

These special inspections I was enabled to raise on the 18th November last.

Typhus Fever.—This virulent infectious disease which used to be so frequent as Ship Fever, Jail Fever, Camp Fever and the Famine Fever of 1847 in Ireland, but which has been much less frequent of late years, presented itself on a vessel at my St. Lawrence quarantine, but was successfully stamped out there.

In view of the general movement in China for the abolition of the pig-tail, it was thought that such hair might be imported into this country for trade purposes. I therefore deemed it well in January last to cause an amendment to the quarantine regulations to be proclaimed in the *Canada Gazette,* providing for the disinfection of unmanufactured and uncleaned hair before it is allowed to enter into Canada.

Vessels that clear from United States ports south of San Francisco are mostly coastwise and have usually taken down cargoes from British Columbia, or have sailed to such southern port from San Francisco, or they are new vessels coming from England for the coasting trade in British Columbia, and simply call in for coal. The piers at which they touch are at some distance from the towns, and there is probably less contact with inhabitants on shore than is usually the case with vessels in port. Moreover, the conditions as regards the health of the communities in Southern California are as readily ascertained as are those of the communities back of San Francisco. I have, therefore, extended the exception from routine inspection given by ministerial order under Section 7 of the Quarantine Regulations to vessels from San Francisco and ports north thereof, so as to include vessels from all ports on the Pacific Coast of the United States.

These exceptions under section 7 are only temporary, and can be set aside at any time by my order should circumstances render it advisable.

Circular letters of warning and instruction were issued to officers from time to time; and strict measures—ordinary and special—have been applied for the sanitary protection of the country.

The medical service has suffered during the year by the accidental death by drowning of Dr. Doule, the Assistant Quarantine Officer at Halifax. He has

been replaced by Dr. V. N. MacKay, as Bacteriologist and Medical Assistant. Drs. Heagerty and Warwick have been appointed Bacteriologists and Medical Assistants at Grosse Isle and St. John respectively. And subsequent to the resignation of Dr. Walker of William Head, B.C., to take up other work, his place as Bacteriologist and Medical Assistant at that station has been filled by the appointment to those offices of Dr. Hunter.

Owing to the ever-increasing influx of immigrants by the St. Lawrence, a further medical assistant must soon be appointed at Grosse Isle.

The inclusion in the new estimates of an item toward a National Biological Laboratory marks a very signal advance in the public health history of Canada.

Plans of the Grosse Isle Quarantine Station and models of some of its scientific appliances were sent to the International Exhibition of Hygiene at Dresden. The special commissioner, Dr. Hansberger, of Berlin, Ontario, who was in charge of and explained our exhibit in German and in English, reports that: 'The Canadian exhibit was much admired and commended by all. Compared with others of similar character in the exhibition, its outstanding features were its excellent location, complete equipment, thorough organization, and rigid enforcement of all regulations.'

The Governor General of Australia by despatch to the Governor General of Canada introduced to us Dr. J. Perrin Norris, Director of Public Health of Australia. That Commonwealth sent Dr. Norris to acquire public health knowledge in the different countries of the world. By my instruction my Director-General of Public Health arranged for his seeing the quarantine station at William Head, B.C., and upon his arrival in Ottawa explained our system to him, and took him down to and over the quarantine station at Grosse Isle in the River St. Lawrence. My officer also made him known to the immigration officials at Quebec, all national medical matters—including immigration, marine hospitals, adulteration of food and drugs, in addition to quarantine and leprosy—being in Australia under the Director of Public Health.

VI.—CENSUS AND STATISTICS.

The Canada Year Book for 1910, being the sixth volume of the second series was published in June, 1911. Progress was made with the preparation of the Year Book for 1911, and the bulk of the manuscripts of the statistical tables was delivered to the Printing Bureau before the close of the fiscal year.

The report on the Criminal Statistics of 1910 was issued, and the report for 1911 is now being prepared.

The fifth census of Canada was taken as for June 1, 1911, by 264 commissioners and 9,703 enumerators. The first preliminary announcement of the population was made on October 17, 1911, and on February 26, 1912, was published a special report of 172 pages giving the areas and the population according to the census of 1911 by provinces, districts and subdistricts. The following statement shows the total population by provinces compared with the census of 1901:—

Provinces.	1901.	1911.	Increase.	Increase p.c.
Alberta	73,022	374,663	301,641	413·08
British Columbia	178,657	392,480	213,823	119·68
Manitoba	255,211	455,614	200,403	78·52
New Brunswick	331,120	351,889	20,769	6·27
Nova Scotia	459,574	492,338	32,764	7·13
Ontario	2,182,947	2,523,274	340,327	15·59
Prince Edward Island	103,259	93,728	−9,531	−9·23
Québec	1,648,898	2,002,712	353,724	21·45
Saskatchewan	91,279	492,432	401,153	439·48
Yukon	27,219	8,512	−18,707	−68·73
Northwest Territories	20,129	17,196	−2,933	−14·57
Totals for Canada	5,371,315	7,204,838	1,833,523	34·13

NOTE—The Sign minus (−) in the foregoing denotes a decrease.

The rural population in 1911 was returned as 3,924,394 and the urban population as 3,280,444. The increase of rural population is therefore 555,376, and of the urban 1,278,147, which is 16·48 per cent for the former and 63·83 per cent for the latter.

Good progress has been made with the compilation of the other tables of population by what is called the card system. At the end of the fiscal year the records of more than 4,370,000 persons had been transferred from the original schedules to the cards. Upon the completion of this work the various tables of ages, origins, nativities, immigration, religions, occupations, literacy, language spoken, school attendance, wage earnings, &c., will be assembled on electrical machines and made ready for the press. The schedules of manufactures and agriculture are in the hands of two staffs of compilers, and at the close of the fiscal year good progress had been made in the preparation of the tables for publication.

The census records of butter, cheese and condensed milk produced in Canada in 1910 were published in the Census and Statistics Monthly of March, 1912. They show that there were 3,628 factories in operation. The quantity of butter made in the year was 59,875,097 lb. of the value of $15,682,564, compared with 36,056,739 lb. of the value of $7,240,972 in 1900. The quantity of factory cheese made in 1910 was 231,012,798 lbs. of the value of $21,620,654, compared with 220,833,269 lb. of the value of $22,221,430 in 1900. The number of condensed milk factories increased from four in 1900 to twelve in 1910, and the value of the produce increased from $269,520 to $1,839,871.

The work of the census has necessitated the employment of a large extra staff appointed under authority of the Civil Service Amendment Act, 1910 (9-10 Edw. VII. c. 8, s. 7). On March 31, 1912, the total number of temporary clerks engaged in census work was 173 (31 male and 142 female).

By Order in Council, dated March 30, 1912, the Census and Statistics office was transferred from my department to the Department of Trade and Commerce as from April 1, 1912.

The whole respectfully submitted.

MARTIN BURRELL,

Minister of Agriculture.

PUBLIC HEALTH.

APPENDIX No. 1.

REPORT OF THE DIRECTOR-GENERAL OF PUBLIC HEALTH.

(F. Montizambert, I.S.O., M.D. Edin., F.R.C.S.E., D.C.L.)

March 31, 1912.

Sir,—I have the honour to submit this my report as Director-General of Public Health, for the year ending this day.

Amongst the continued threatenings of infectious diseases from abroad that of Asiatic cholera has been the gravest in its menace to this country.

Asiatic cholera.—Since my last annual report this disease has been reported in the following countries: Arabia, Austria-Hungary, Bulgaria, Ceylon, China, Formosa, France, Hawaii, Dutch East Indies, India, Indo-China, Italy, Japan, Java, Korea, Madeira, Malta, Montenegro, Persia, Philippine Islands, Roumania, Russia, Servia, Siam, Straits Settlements, Sumatra, Tripoli, Tunis, Turkey in Asia, and Turkey in Europe.

The outbreak of this disease has been most pronounced. The threatening to this country has been great owing to the large number of passenger vessels plying directly from Italian ports to ports in the United States, and the considerable number of Italian passengers who arrive at Canadian ports indirectly by English and Continental lines. At the height of the epidemic in Italy, there were reported in Italy between June 8 and August 12 last, 5,591 cases with 2,199 deaths.

On June 13 the steamship *Berlin* arrived at New York from Italian ports with the history of having had a death at sea from cholera. On the following day the *Europa* arrived at New York Quarantine with a case of cholera aboard, and on June 20 the *Duca Degli Abruzzi* arrived with four cases. Other vessels also arrived with cases of cholera, or cholera carriers.

The occurrence of these cases among passengers who had been detained under observation for a period of five days before embarkation indicated that cholera carriers were becoming an important factor. Cholera bacillus carriers are individuals who carry the vibrio of cholera in their intestinal tracts, or probably at times in the gall bladder, and yet exhibit no clinical symptoms of the disease. Persons who have had the disease and recovered may continue to be carriers for days or weeks, others may be carriers for a short period before developing clinical symptoms, and still others, who have been in direct or indirect contact with the sick or with other carriers, may become carriers for varying periods without being ill at any time. In places where cholera is epidemic there will usually be found a number of healthy carriers. Past Assistant Surgeon McLaughlin found six to seven per cent of carriers among healthy individuals living in the infected neighbourhoods in Manila. The cholera carrier is undoubtedly a much more potent factor in the spread of the disease from one locality to another than are actual cases of the disease. The sick are readily detected and isolated, but the detection of healthy carriers is a far more difficult problem and requires a careful and painstaking bacteriological examination, which usually takes at least two days to complete.

In compliance with the United States Quarantine regulations, persons coming from cholera infected localities are detained under observation for a period of five days before being allowed to embark at foreign ports. On account of the continued prevalence and spread of the disease in Italy the United States consuls at all Italian ports have been directed to hold all steerage passengers five days, no matter from what section of Italy. They are not allowed to take foodstuffs on board.

These precautions apparently blocked all avenues by which the disease could be brought to this country with the possible exception of the cholera carrier, to eliminate whom an addition was made to the quarantine regulations July 19, 1911, requiring that all steerage passengers arriving at United States ports from ports or places infected with cholera shall be subjected to a bacteriological examination and shall not be admitted to entry until it has been determined by such examination that they are not cholera carriers.

Here in Canada we had our first experience of a cholera carrier in the person of Godlieb Seide the Russian immigrant who arrived at Quebec on the 17th November, 1910, was found to be a cholera carrier, and was still under observation as such at the Quarantine Station of Grosse Isle in the River St. Lawrence when I submitted my last annual report a year ago to-day. He continued to give positive indications during April last, and it was only in May that the bacteriological tests gave negative results. He therefore remained a cholera carrier for at least five months.

Emigrants from Italy are bacteriologically examined by medical officers of the Italian Government for the presence of cholera carriers before embarkation. Out of a total of 9,557 such examinations made, 40 carriers were found at Naples, and one at Palermo. A point of interest in connection with one case of cholera reported in Manila is that of seven contacts, all upon examination proved to be cholera carriers and none developed the clinical symptoms of the disease.

At the New York Quarantine from 20th July to 19th November, when the regulation was modified so as to apply only to immigrants arriving on cholera infected vessels, out of 26,455 passengers bacteriologically examined by the ten or more bacteriological assistants, twenty-six proved to be cholera carriers.

The actual cases reported from the United States during last summer are thus given in the Public Health Reports of the United States Public Health and Marine Hospital service:—

Places.	Date.	Cases.	Deaths.	Remarks.
Massachusetts:				
Boston	July 20	1	1	Removed to quarantine station at Gallups Island.
New York:				
Auburn	June 30-July 1	1	1	From steamship Duca degli Abruzzi, from Genoa and Naples.
Brooklyn	June 30-July 4	1	1	From steamship Duca degli Abruzzi. Removed to quarantine.
New York City	July 19-22	1	.....	Removed to quarantine.
New York quarantine	June 5-Aug. 19	18	13	Case June 5-July 18 from steamship Europa, from Genoa and Naples. Case July 11 from steamship Carpathia, from Trieste, Fiume, and Italian ports. 5 cases June 18-July 21 among passengers from steamship Duca degli Abruzzi. 9 cases July 12-31 among passengers from steamship Moltke, from Genoa, Naples, and Palermo. 1 case from steamship Konig Albert, from Genoa, Naples, Palermo, and Gibraltar. 1 case Aug. 16 from steamship Re d'Italia.
Staten Island	July 14-15	1	.....	Removed to quarantine.

No case of cholera nor cholera carrier was detected upon arrival at New York subsequent to August 18, 1911; but the United States Government kept on officers of the Public Health and Marine Hospital service at the principal foreign ports, and continued the bacteriological examination of immigrants for the detection of cholera carriers.

The method employed included the administration to the immigrant of a saline purge; the inoculation of a peptone tube with a specimen of stool; the incubation of this tube for six hours; the examination of smears made from the surface culture of the peptone tube, which smears are stained with carbol-fuchsin; if curved organisms are found subcultures in peptone and plates are made on ordinary nutrient agar neutral to phenolphthalein; colonies which have the characteristics of cholera colonies are next examined with reference to the quantitative agglutinating power of a specific cholera serum. Working with this method, ten bacteriologists examined 1,000 specimens in a single day and the complete examination of 1,200 stools was concluded within 48 hours. The immigrants from infected districts had been examined bacteriologically before leaving Italy so that the chances of finding carriers were small. Quite a number of vibrios were isolated, but none agglutinated with cholera serum, although some were morphologically indistinguishable from true cholera vibrios.

The bacillus carrier is an individual who may harbour cholera vibrios in his intestines and yet exhibit no signs of the disease. McLaughlin states that he has never known a bacillus carrier to harbour cholera vibrios for longer than 20 days, and that the great majority lose their vibrios in less than 10 days. Other authorities, however, give greater periods of longest duration. Rommelære gives 47 days, Kolle 48, Donitz 49, and Bürgers in February, 1910, reported a case in which the vibrios were still present up to 69 days. McLaughlin found six to seven per cent of carriers among healthy individuals living in the infected neighbourhoods of Manila. When cases are few in number, so called sporadic cases, hundreds and even thousands may be examined before the first carrier is found. The presence of bacillus carriers illustrates how Quarantines may be passed and an apparently inexplicable outbreak may take place. The danger from a bacillus carrier obviously depends upon his personal habits and the sanitary condition of the community in which he finds himself.

Our Russian patient who remained a carrier all through the Winter of 1910-11 at least five months excels all these quoted periods, as a cholera carrier. Because of the development of a case of cholera after the patient had been detained in Quarantine for five days, it has been decided that it will be necessary to lengthen the period of detention to ten days. The patient in this case arrived in New York on the Italian steamer *Duca degli Abruzzi,* and after the usual detention was allowed to proceed to Brooklyn. Four days later she was taken ill with symptoms of cholera, and was removed to the Quarantine hospital, where she died.

Cholera is due to the comma bacillus, and is taken through the mouth in water, food, or from the fingers, in almost exactly the same way as is typhoid fever. There is no danger from this disease if the same precautions are taken which should be taken in an epidemic of typhoid fever. Cholera has an incubation period of about five days, although it seems that occasionally the invasion may run from ten to twelve days. During the stage of invasion, there is commonly slight diarrhoea, colicky pains, headache, mental depression, and sometimes nausea and vomiting. The disease may terminate without further progress, but generally collapse and death or collapse and re-action supervene. In a few words, when the stage of collapse is entered upon the ordinary loosening of the bowels is suddenly succeeded by frequent copious stools, which lose their fecal character and become liquid or 'rice-water' discharges, generally passing without pain. Sometimes, however, with intense suffering. Then severe and persistent vomiting, thirst is excessive, tongue is furred and dry. We then note painful cramps in the legs and feet. Patient becomes rapidly

exhausted or collapsed. The skin is soft, shrivelled and wet. The lips and finger tips become blue, the face is gray, the eyeballs recede and cheeks become sunken. The temperature taken by the rectum may reach one hundred and four (104), but by axillary or mouth the temperature, however, *may be considerably below normal.* This is a very important point that should be remembered by every physician. Pulse becomes exceedingly feeble and imperceptible at the wrist. There may be stupor or coma, and scanty urine. It is seldom that this stage continues more than two days, and may last only a few hours. If death does not take place during collapse, you have the stage of reaction, when the skin becomes warmer, the flow of urine, which has previously been very scanty or even suppressed and albuminous, is re-established. Vomiting ceases, stools become less frequent and more fecal in character, pulse strengthens, the fever is gone and convalescense is usually at hand; although relapses occur the same as in typhoid fever.

The disease most likely to be mistaken for cholera is cholera morbus. Cholera morbus in a severe form has been mistaken for cholera a great many times, but now a positive diagnosis is entirely possible by the microscope, showing the presence or absence of comma bacillus. Some poisons produce symptoms similar to cholera. They can be detected by the microscope or by chemical tests of the stomach contents. The mortality varies in different epidemics, reaching from twenty to eighty (20 to 80) per cent, but the prognosis at all times must be very guarded.

In the first place the fact should be kept clearly in mind that the cholera spirillum is produced only in the intestinal tract of the patient. It leaves the sick or infected person only in the stools and the vomited matter. It is not present in the urine, expired air, nor in the secretions of the mouth and nose unless vomiting has occurred.

The second fact to remember is that cholera can be spread only by the transportation of particles from the infectious stools or vomited matter into the mouths and intestinal tracts of other persons. The ways in which this infectious matter may find its way to the alimentary canals of other persons are the following:—

(*a*) The infection may be carried to other persons by food which has been handled by persons who are more or less sick with cholera, or by persons who are not sick, but are merely infection carriers.

(*b*) Food may likewise be infected by the fingers of persons who have attended other persons sick with cholera.

(*c*) Persons may infect themseves by carrying their fingers to their lips after they have attended to the wants of the sick or have handled the bed or clothing of cholera patients or other infectious things, or who have visited toilet rooms infected with cholera discharges.

(*d*) Cups or spoons or other eating utensils used by the sick may serve as the agents of transmission.

(*e*) Flies having access to the sick room or to infected privy vaults or to other sources of infection may subsequently infect milk, bread, or other food supplies.

(*f*) Wells, springs, cisterns and public or other water supplies may serve as media of infection after they, directly or indirectly, have received any of the infectious matter from cholera discharges.

(*g*) Low growing vegetables from infected ground, eaten raw, may become the media of transmission.

Owing to the threatening of cholera from Italy the following ministerial order was issued:—

CIRCULAR TO QUARANTINE OFFICERS, THE COMMISSIONER OF CUSTOMS, SHIP OWNERS, AGENTS, AND OTHERS CONCERNED.

OFFICE OF THE DIRECTOR-GENERAL OF PUBLIC HEALTH,
OTTAWA, CANADA, July 27, 1911.

SIR *or* SIRS,—I am directed by the Honourable the Minister of Agriculture to inform you that, in order to diminish the danger of the introduction of Asiatic cholera into this country, he has issued the following orders:

All steerage passengers arriving at ports in Canada from ports or places infected with cholera shall be subject to bacteriological examination at the quarantine station of the port and shall not be permitted to pass such station or to make customs entry, until it has been determined by such examination that they are not cholera-bacillus carriers. This regulation shall apply until further notice to steerage passengers from Italy coming directly or via intermediate ports.

For all cholera contacts arriving on vessels upon which cholera has occurred, the period of detention under quarantine observation shall be 10 days, unless after 5 days' detention they are found not to be cholera-bacillus carriers.

Your obedient servant,

F. MONTIZAMBERT,
Director General of Public Health.

This remained in full force until the improvement in the cholera situation abroad in November last. It was then modified to apply only to immigrants on infected vessels. Special bacteriologists were appointed at the ports of arrival, the quarantine stations at Halifax, St. John and Quebec.

In the carrying out of the bacteriological examinations under the above cited circular two cholera carriers were detected at Grosse Isle, the Quarantine Station in the River St. Lawrence below Quebec. These with Godlieb Seide already referred to as discharged at the end of May make three cholera carriers at that station this season.

The second case was one of the Italian steerage passengers arriving by the SS. *Lake Erie,* on August 7, with 32 other passengers of the same nationality. One of these 33—who were, of course, all examined—named Vacchero Guiseppe, was found to be a cholera carrier. He was discharged cured on August 26th.

The third was a sailor on the SS. *Grampian.* The vessel arrived on August 27th. This man was English. He had been at Novorrossisk, a port on the Black Sea, seven or eight weeks before joining the *Grampian* at Glasgow. He had a history of a slight attack of diarrhœa after leaving Glasgow, but professed himself perfectly well. Bacteriological examination, however, proved him to be a cholera carrier. Under proper treatment he was able to be discharged cured on the 16th September.

Italy has been declared free from cholera since the 31st of December.

This disease prevailed during the year in the other countries mentioned above, but the threatening from the epidemic in Italy was the gravest upon either Atlantic or Pacific coast.

I dwelt in my last annual report upon the new sanitary problems introduced by the recent recognition of cholera carriers. With reference to the treatment of Asiatic cholera, I here insert an extract from a paper published in the *British Medical Journal* in November last by Leonard Rogers, M.D., Major I.M.S.:—

'It is impossible, as it is unnecessary, in such a paper as this, to give a complete account of all the details of the system of treating cholera which I have worked out during the last few years in Calcutta, as they are fully recorded in my recently published work on the disease, while a summary appeared in a paper in the *British Medical Journal.*

PATHOLOGICAL PRINCIPLES.

'It will, however, be advisable briefly to recapitulate the principles on which it is based, so as to allow of what I have to say regarding my recent very instructive experience of cholera among Europeans at Palermo being more readily followed.

The Blood Changes in Cholera as a Scientific Basis for its Treatment.

'In the first place my researches have shown that in the collapse stage of cholera, from one-half to two-thirds, or even more, of the fluid of the serum has been lost to the system, while in the most severe cases a still greater proportion of the chlorides may be lost, and the serum may even be hæmolyzed. These observations indicate the necessity of rapidly replacing the lost salts as well as the lost fluid, and of raising the salts in the blood somewhat above the normal point, so that the osmotic currents will tend to cause fluid to run into the blood rather than out of it, and thus the diarrhœa will be checked, instead of increased, as it is by the use of normal salines. For this purpose I use the following hypertonic saline solution:

Sodium chloride	120 grains
Potassium chloride	6 "
Calcium chloride	4 "
Aqua	ad 1 pint

As this formula contains 1·35 per cent of sodium chloride it is twice as strong as formerly used as normal saline, and half as strong again as the amount of salts now given as the normal amount by physiologists. The last two chlorides are added to make the proportion of the three approximate to Ringer's solution, which, when perfused through an animal's heart, will keep it beating very much longer than sodium chloride alone. Messrs. Parke Davis make hypertonic tablets of the above composition such that four to one pint make my hypertonic solution, while three in the same amount make an approximately normal saline. I used them with marked success at Palermo. I have, however, used 2 drachms to the pint of sodium chloride alone in very many cases, with successful results. I may take this opportunity of pointing out that the solution advised for intravenous injection in the article on cholera in the last edition of Allbutt's *System of Medicine,* consisting of 0·4 per cent sodium chloride and 0·2 per cent sodium carbonate, is dangerously hypotonic; in fact, I found it hæmolyzed a little of my own blood nearly completely in about two hours, so that its use in large quantities would probably have most disastrous consequences.

Blood Pressure and Specific Gravity Estimations as a Guide to Transfusions in Cholera.

'The degree of collapse may be accurately measured by taking the blood pressure with one of the numerous modifications of the Riva-Rocci mercury manometer. Observations on several hundred cases of cholera have shown that if the blood pressure has fallen to 70 mm. or less in natives of India, or to 80 mm. or less in Europeans—which means a serious degree of collapse—it is necessary to give intravenous injections, but if above these points, saline injections are readily absorbed when given subcutaneously as hypertonic solutions, or by the rectum as isotonic ones. Of even greater value is the estimation of the specific gravity of the blood by means of a series of twelve small bottles of glycerine and water of each two degrees from 1048, 1050, &c., up to 1070. A small drop of blood from the finger is blown gently from a capillary tube into the middle of a bottle, and if it sinks it is heavier than the solution, and a higher bottle is tried until it floats for a few seconds, which is the point required. If it sinks in one and rises in the next, the point is between the two. This estimation can be easily made by the bedside in two minutes, and it furnishes invaluable information as to the degree of concentration of the blood, and the necessity for an intravenous

injection, as well as an indication of the quantity required. The normal specific gravity being about 1056, if it is raised to 1063 or over it is safe to inject intravenously 4 pints in an adult male, and 3½ pints in a female. If the blood is very greatly concentrated, as shown by a specific gravity of from 1066 to 1070 or over, as much as 5 or 6 pints may be used, the last one or two being given slowly. The rate of injection can be readily controlled by means of the graduated glass bulb and stopcock cannula made for me by Messrs. Down Brothers. The fluid may be run in at the rate of 4 oz. per minute until a full pulse has returned, and then more slowly, especially if there is headache or oppression of the chest. It is advisable to dilute the blood to several points below the normal specific gravity, so as to allow a reserve of fluid for any further diarrhœa and for excretion through the kidneys, whereby toxins will be removel from the blood. The latter effect will be greatly facilitated by the fully normal blood pressure which will usually be obtained by the injection of the large quantities advised above. In addition to the intravenous injections, whenever the blood pressure falls to 80 mm. or less in a European, half to one pint of normal saline is also injected high up into the rectum every two or four hours in all cases to keep the blood fully diluted. and this measure is continued until at least 2 pints of urine are passed in the twenty-four hours.

Control of the Temperature Reaction.

'There is always a rise of temperature in the reaction stage of cholera, even when no salines have been used, and older Anglo-Indian writers regard this as the most dangerous stage of the disease. After an intravenous injection a similar marked febrile reaction occurs, often accompanied by a rigor, and it may sometimes run on into a dangerous hyperpyrexia, if not detected in time, and controlled by cold sponging and iced water rectal injections. A temperature of from 101° F. to 103° F. is a good sign, and if it rises to 104° F. or over, it should at once be reduced by the above measures. I have observed that dangerously high reactions occur most during hot damp weather, and especially in patients whose rectal temperatures were above normal at the time of the injection, although the surface heat may have been much below normal. In such cass the salt solution should be injected at below blood heat. Instances in which 4 pints of hypertonic solution were successfully given intravenously at a temperature of only 86° F. in patients whose rectal temperatures were 105° F. and 106° F. are given in my book.

The Prevention of Uræmia.

'The greatest danger after recovery from the collapse stage of cholera is the continued deficiency of the renal secretion, terminating in fatal uræmia and toxæmia. I have shown experimentally that this is due to renal stasis from continued subnormal blood pressure and concentration of the blood, which can be readily detected by blood pressure and specific gravity estimations two or three days before the onset of grave symptoms. Further, provided the kidneys were previously healthy, and the patient is not very old, the onset of uræmia may nearly always be prevented by diluting the blood to at least the normal point by isotonic salines, either subcutaneously or intravenously at a slow rate; and by the use of blood pressure raising drugs, such as digitalin, strophanthin, caffeine, and the vaso-constrictors, adrenalin and pituitrin. A number of illustrative cases are given in my book, so I need only mention here that in Calcutta the deaths from uræmia have been reduced by these methods to one-half their former numbers, and that too in spite of so many grave cases of cholera being tided over the collapse stage by hypertonic injections intravenously to face the dangers of later failure of the renal secretion.

Permanganates Internally to Destroy the Cholera Toxins in the Bowel.

'Although a great reduction in the mortality of cholera resulted from the use of hypertonic salines, yet some of the more severe cases died of toxæmia after being rescued from the dangers of collapse. It thus became clear to me that any further progress must depend on the destruction of the toxins in the body. In the absence of any specific serum of proved potency, I experimented to see if the toxins are readily destroyed by any substance which could be safely introduced into the gastro-intestinal tract in sufficient quantity to be likely to be of service, for as the cholera organisms are practically limited to the interior of the bowel, the toxins must be elaborated there, and absorbed into the blood. As bacterial poisons are mostly albumoses and closely allied unstable albuminous compounds, I tested the action of oxidizing agents, such as I had previously shown readily destroy all kinds of snake venoms, which are also albumoses. I found that cholera toxins are rapidly rendered completely inert by the action of permanganates, so I commenced giving these drugs in the following ways. A solution of calcium permanganate (which is somewhat less astringent than the potassium salt and at the same time stronger, as it is divalent) is given to drink *ad lib.* in a solution of 6 grains or more to the pint. It is usually advisable to dilute it further at first until the patient gets accustomed to the taste, and then gradually increase it as much as possible. In addition, the potassium salt is given in pills, being more convenient for this purpose, as it is much less hygroscopic than the calcium one:

Potassium permanganate	2 grains
Kaolin	q.s.

Make a pill and coat with salol or keratin, so that it will pass through the stomach and dissolve in the small intestine, where the action is desired. Two pills are given every quarter of an hour for the first three hours, and then two every half hour until the stools become green and less copious, which usually occurs within about twelve hours. The pills are then discontinued, but a course of eight pills is given at the beginning of the second and third days under treatment, to prevent relapses. In children smaller amounts must be given. Any pills which are vomited are replaced by others.

RESULTS OBTAINED IN INDIA.

Such is a brief outline of my methods, and I venture to claim that they amount to a complete system of treatment, based on scientific investigations, and affording means of accurately estimating the exact condition of the patient at any stage of the disease and for correctly meeting the indications furnished by the blood pressure and specific gravity estimations. The results obtained during the last four years in India may be summarized by saying that by the use of the hypertonic saline solution intravenously the death-rate in almost 300 cases, during two years, was reduced to 32·6 per cent from the previous rate in the same hospital during eleven years of 59·6 per cent. Further, during a complete year, with the addition of the permanganates internally, the death-rate was further reduced to 23 per cent. Moreover, I have been informed by Major Megaw, I.M.S., that this last result has been well maintained during the present year; while Captain Rutherford, I.M.S., in an epidemic in the Central Provinces in 1910, also obtained 77 per cent of recoveries, his death-rate being little more than one-third of that of cases in the same outbreak treated by other methods.'

Mr. H. D. Pant, L.M.S., (Lucknow, India), writing with reference to the internal administration of potassium permanganate in the treatment of Asiatic cholera, says that he called attention to the use of this drug, which he has employed for seventeen years, in a discussion which followed the reading of a paper on the treatment of

Asiatic cholera by Major Leonard Rogers at the Bombay Medical Congress in 1909. He adds the following quotation from the transactions on the congress: 'Hypodermic injections of camphor, rectal injection of saline solution, and teaspoonful doses every quarter or half an hour of a solution of permanganate of potash, gr. ½ to oz., are my sheet anchors during collapse. What effect the permanganate has, and how I came to adopt it, I am unable to explain. Suffice it to say that the use of this drug has satisfied me and my patients by giving force to the wavering and flickering pulse.'

A sketch map contained in the last monthly *Bulletin* of the International Office of Public Hygiene in Paris shows the prevalence of cholera in the Mediterranean basin and adjacent countries during 1911. In May the disease existed in epidemic form in three districts—two in Asia Minor, one near the southern Persian frontier, and another north of Erzeroum, extending as far as the southern shore of the Black Sea, and a third to the east of the Volga, in the lower part of its course. In June it had extended over a large area of country in Asia Minor, between Smyrna and the Sea of Marmora, as well as on the Persian frontier to the south of the districts infected in May. In July it had extended to both sides of the Volga as far as its mouth in the Caspian Sea, and to Sicily and the eastern parts of Southern Italy. In August the southern part of Sardinia was infected, as well as districts both in North Italy and on the eastern side of the southern part of the peninsula. It had also extended in Asia Minor to the whole of the southern shore of the Black Sea and of the Sea of Marmora and to the Aegean coast. In September Tunis and Tripoli had become infected as well as the northern part of Sardinia and several additional areas in the north of Italy. In August the disease had extended also throughout Macedonia as well as to the left bank of the Danube, from whence it spread to the right bank in September; the extent of country infected on the left bank increased during October, November, and December. The history of last year gives colour to the opinion which has been expressed by some authorities that the disease is again moving in an easterly and northerly direction, and it will be necessary for this country stringently to enforce the customary precautions during the approaching spring and summer.

Bubonic Plague.—This disease has prevailed during the year in the following countries: Algeria, Arabia, Azores, Brazil, British East Africa, British South Africa, Chile, China, Dutch East Indies, Ecuador, Egypt, German East Africa, Hawaii, India, Indo-China, Japan, Java, Mauritius, New Caledonia, Peru, Philippine Islands, Russia, Siam, Straits Settlement, Trindad, Turkey in Asia, and Venezuela.

In my last annual report I spoke of the four deaths from Pneumonic Plague that had occurred in Suffolk, England, in the autumn of 1910. In August last a consecutive account of the occurrence and of the epidemic of plague in rodents was issued in a report of the local Government Board. In an introduction to the report Dr. Newsholme states that after a knowledge of the circumstances had been brought before the Board it was realized that grave significance attached to the presence of a focus of plague in rodents, and that no efforts should be spared in coping with the situation. Three inspectors of the Board—the late Dr. Bulstrode, and his colleagues, Drs. Fletcher and Reece—were engaged during several months in investigating the outbreak, and in warning and stimulating to activity the local authorities and their officers in the infected area. Arrangements were made for the destruction of rats upon an extensive scale, and for the examination of these and other rodents. The examinations were carried out by Drs. Petrie and Macalister of the Lister Institute at the Public Health Laboratory of the Ipswich Corporation. After giving an account of the illness of the four persons who died in September, as reported upon by Dr. Sleigh and Dr. Brown in the *British Medical Journal* of November 12, 1910, Dr. Bulstrode discusses the opportunities for the introduction of plague into East Suffolk by means of rats. The possibilities of the introduction being due indirectly to cargoes of grain, or to the London manure, which is dispatched either by rail or barge to the eastern counties, are considered by him in some detail. It appears that

very little of the latter reaches Suffolk, and for this and other reasons he seems to be of opinion, though he does not definitely say so, that the original centre of diffusion was Ipswich, and this mainly by reason of the very large grain trade carried on at the Ipswich Docks, and by the opportunities which exist at the docks for the access of rats from the ships to the shore. Of considerable importance are the suggestions which he makes as to future precautions. He points out that practically all the outbreaks of the present day are found to be preceded, if diligent search be made, by mortality amongst rats or other rodents, and where such mortality obtains the risk of the human population being involved is considerable. Arrangements should accordingly be made by every sanitary authority for receiving the earliest intimation of deaths among rodents and for sending to the Health Boards specimens of such animals for bacteriological examination. It is conceiveable, he admits, that a large number of rats in the invaded localities may now be relatively immune from plague, but as a young rat population arises there will grow up a large unprotected rat population, prone to die off if, and when, the rat epizootic appears. Consequently persistence in rat destruction is called for. Further recommendations are that immediate medical advice should be sought whenever suspicious symptoms occur; that a supply of Haffkine's plague prophylactic should be held in readiness by medical officers of health; that isolation accommodation should be provided by sanitary authorities; and that, with regard to general sanitary measures, 'the greatest attention should be paid to the poorest, most insanitary, overcrowded, and district property, since it is on premises of this description that plague is most likely to occur, and the pneumonic variety of the disease is most easily spread.'

A case of plague was reported at Shotley, Suffolk, on November 2 last, a sailor. It is thought he derived the disease from a rabbit.

A case of plague was reported in Glasgow in June last. Cases occurred in the United States in the State of California, in Contra Casta County on 21st July, in Oakland on August 9, and in San Joaquin County on 18th September. Infected rats were found in the city of Seattle up to 21st September last, and infected squirrels in California up to 27th October last. The following record of plague infection in the United States is from the Public Health Reports of the United States Public Health and Marine Hospital service under date the 29th instant.

Places.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number of rodents found infected since May, 1907.
California:				
Cities—				
San Francisco	Jan. 30, 1908.	Oct. 23, 1908.	None	398 rats.
Oakland	Aug. 9, 1911.	Dec. 1, 1908.	"	126 "
Berkeley	" 27, 1907.	None	"	None.
Los Angeles	" 11, 1908.	"	Aug. 21, 1908.	1 squirrel.
Counties—				
Alameda (exclusive of Oakland and Berkeley).	Sept. 26, 1909.	Wood rat, Oct. 17, 1909.	Oct. 9, 1911.	114 squirrels and 1 wood rat
Contra Costa	July 21, 1911.	None	Sept. 29, 1911.	364 squirrels.
Fresno	None.	"	Oct. 27, 1911.	1 "
Merced	"	"	July 13, 1911.	5 "
Monterey	"	"	Aug. 6, 1911.	5 "
San Benito	June 5, 1910.	"	June 8, 1911.	22 "
San Joaquin	Sept. 18, 1911.	"	Aug. 26, 1911.	18 "
San Luis Obispo	None	"	Jan. 29, 1910.	1 "
Santa Clara	Aug. 23, 1910.	"	Oct. 5, 1910.	23 "
Santa Cruz	None	"	May 17, 1910.	3 "
Stanislaus	"	"	June 2, 1911.	13 "
Washington:				
City—				
Seattle	Oct. 30, 1907.	Sept. 21, 1911.	None	25 rats.

Between April 24 and August 21, 1911, there were reported in Hong Kong 255 cases of plague and 194 deaths from the disease. The plague was most severe in June, when during the second, third and fourth weeks the cases numbered 38, 30, and 25 respectively, and the dates during the corresponding weeks amounted to 26, 23, and 8.

It is again showing itself this spring. In the week ending the 2nd instant 8 cases with 6 deaths were reported. In the week ending the 9th instant 12 cases with 12 deaths, in the week ending the 16th instant 10 cases with 9 deaths, and in the week ending the 23rd, 20 cases and 18 deaths. In Japan, at Kobe, a few cases of plague have occurred during 1911, but nowhere has there been a severe outbreak. In Formosa, however, the prevalence of plague has been severe; between April 2nd and 15th 31 cases with 24 deaths were recorded.

During the first six months of 1911, 604,634 persons died of plague in India. The following table gives also the returns for July:—

Deaths during 1911.	Bombay Presidency.	Bengal.	United Provinces.	Punjab.	Rajputana and Ajmer Merawa.	Kashmir.	Coorg.	Northwest frontier Province.	Central Provinces.	Central India.	Hyderabad Provinces.	Madras Presidency.	Mysore State.	Eastern Bengal and Assam.	Burma.
January	6,364	8,146	39,794	8,028	2,647	43	1	19	5,067	2,404	1,032	1,594	1,386	0	1,096
February	6,703	11,863	43,508	13,064	3,326	27	0	8	5,541	924	784	1,050	656	0	1,044
March	6,865	21,807	95,884	27,166	5,012	73	2	31	5,245	2,115	699	784	458	5	866
April	6,240	13,091	81,924	57,625	4,748	294	0	84	1,412	840	250	229	252	0	496
May	2,474	2,944	24,842	48,292	1,672	456	0	88	96	33	8	84	230	0	505
June	1,463	364	1,365	16,909	389	193	0	12	4	3	0	185	387	0	651
Total half-year	28,109	58,515	281,317	171,084	17,794	986	3	242	17,355	6,319	2,773	3,828	3,369	5	3,728
July	3,406	350	162	2,195	19	0	0	0	51	12	114	699	1,387	0	595
Total (7 months)	31,515	58,865	287,479	173,279	17,813	986	3	242	17,406	6,331	2,887	4,527	4,756	5	4,323

The International Plague Conference called together by the Chinese government after the outbreak of the plague in serious proportions in that country, has made to that government an interim report which includes a summary of the evidence collected by the commission and a series of resolutions and recommendations approved by the conference; but this report will not be made public until the full report of the conference is issued. From the news accounts of the discussions already published, however, the work and the conclusions of the conference may be briefly summarized.

No types of plague were found other than the pneumonic or the combined pneumonic and septicemic, and this is a point of great interest in this epidemic. The other great epidemics have been mostly of the bubonic form. The theory that the plague originated from infected tarabagans, a species of marmot, a fur-bearing animal of the squirrel family, has been accepted as probably the correct one. That this animal is extremely susceptible to plague was shown by the American delegates. It has also been found that this animal suffers from a form of subacute or chronic plague, and this probably explains why the plague is endemic in Northern China. Neither rats nor other animals besides the tarabagan were found to be largely affected with the plague, only one rat having been found to be infected in upward of 30,000 rodents examined by the Chinese and Japanese. One dog was said to have died from plague at Dalny, and there were circumstantial accounts of mules having been infected. The plague promptly subsided when attacked in earnest and the chief factor in its eradication appears to have been the drastic preventive measures taken by the Russian, Japanese and Chinese authorities, although climatic and other natural influences may have contributed to this result. That there was no decrease in the virulence of the bacillus during the later stages of the epidemic seems to have been conclusively demonstrated. Even in the small villages and hamlets the inhabitants were frightened by the fatality of the disease into taking crude but effectual precautions.

It was almost conclusively demonstrated also, that the disease was introduced into every new centre by the arrival of persons actually suffering from plague or incubating the disease. That pneumonic plague can be carried by clothing or merchandise or by vermin was not proved and the direct human factor in its transmission seemed to be the chief one. Experiments undertaken by the American and Japanese delegates seemed to prove conclusively that the breath of the sufferer was not infective apart from particles of sputum expelled by coughing or possibly by forcible speaking. The sputum, however, was shown to be infective as long as it remained moist or frozen, and it is believed that dust can carry infection only by acting as the medium for small particles of moist or frozen sputum, and houses are probably not infective apart from the presence of such infective sputum. It has been determined that the incubation period varies from two to seven days, but is usually three to five days. The pulse was regarded by some as the earliest diagnostic sign; by others, including the Russian delegate, Zabolotny, the temperature was relied on. The absence of marked physical signs in the chest during the early stages was notable, and rendered diagnosis difficult. Less than five recoveries were recorded.

The value of plague vaccines and serums during a pneumonic epidemic was thought to be doubtful, although this feature developed considerable difference of opinion among the delegates. It was suggested that attenuated living cultures of the bacillus might be used for protective inoculation, but this was condemned by some as being too dangerous and therefore unjustifiable.

Two facts seem to stand out prominently from the work of the conference, and these are that the human host is the most important factor in the spread of the infection, and that rather close contact is a necessary element. This is in line with the knowledge that is now becoming more clearly established in regard to other epidemic and infectious diseases, and is the most important point to be taken into

consideration in dealing effectually with them. Even the possibility of immune carriers was demonstrated in at least one instance in this epidemic, and this is in line also with our growing knowledge of the infections.

In connection with the present perfection of laboratory methods in the study of diseases, especially of the infectious diseases, the conference plan of reaching results in a large way in diseases that menace large populations is a marvelously quick and efficient one. This conference, along with the other important international conferences of recent years, is a distinct step forward in the control or elimination of deadly world-epidemics.

Yersin's anti-plague serum is still imported monthly from the Lister Institute of Preventative Medicine in London, England, and held ready to be rushed to any part of the Dominion should occasion arise. With the proposed Canadian Biological Laboratories all such preventive and remedial agents will doubtless be made here.

Leprosy.—The *New York Medical Record* in an article in its issue of the 16th instant on the 'Bacteriological Problems of Leprosy', says: It is now over forty years since Hansen demonstrated the presence of a bacillus in the affected tissues of the leper. Since that time the bacteriology of leprosy has constantly engaged the attention of all investigators of the disease, but it is only within comparatively recent years that any substantial additions have been made to our knowledge of this phase of the subject.

'In the *United States Naval Bulletin* for January, 1912, Passed Assistant Surgeon Crow, of the Navy, gives an account of his work on the search for the micro-organism in the general circulation of lepers. Out of a total of twenty-four inmates of the leper colony in Guam, he demonstrated the presence of the bacillus in the blood of all but three. His technique was carefully perfected, and it seems that all necessary precautions were taken to exclude contamination by substances which might contain other acid-fast bacilli. He concludes that if sufficient care and diligence be used, the lepra bacilli may be found circulating in the blood in at least 80 per cent of cases. The constant presence of the bacillus in the leprous lesions has heretofore been regarded as the chief argument in favour of its being the cause of the disease. The work of Crow adds another link to the chain of evidence, and although, in this particular affection Koch's four postulates still remain uncompleted, there is, nevertheless, no reasonable doubt of the etiological connection between the bacillus and the lesions in which it is found.

The inability to propagate the bacillus artificially, either in laboratory animals or in culture media, has in the past presented the greatest obstacle to the final proof of this connection. Likewise, without this knowledge, intelligent studies in specific therapy have been impossible, and investigation of the manner of transmission necessarily limited to the keeping of clinical records. The work of Currie, Clegg, and Hollman of the leprosy investigation station in Hawaii seems now to be far enough advanced to warrant the conclusion that it will not be long before some truly specific treatment may be forthcoming. In an effort either to confirm or to disprove the statement of Clegg, who, as a result of independent work in the Philippines in 1909, claimed that he had succeeded in isolating in pure culture the lepra bacillus, the investigators at the Hawaiian station commenced, in 1910, a series of experiments which have not only tended to corroborate the independent work of Clegg, but also to contribute substantially to our knowledge of immunity in this disease. By adding leprous material to agar on which the cholera spirillum and amebas were growing in symbiosis, they found that they were able to cultivate an acid-fast bacillus which was morphologically similar to that of leprosy *(Public Health Bulletin, No. 47)*. Furthermore they have been able to isolate this bacillus in pure culture and by serum tests have proven that it is not identical with other members of the same group, represented by the smegma bacillus, and the grass bacillus of Möeller.

'From the fact that the organism which they have isolated can be grown from leprous tissue, together with its morphological similarity to *B. lepræ* as originally found in such tissue, it seems fair to assume that the two are, in reality, identical. This opinion is still further confirmed by the Hawaiian investigators' studies in immunity *(Public Health Bulletin, No. 50)*. It had already been shown that the blood serum of lepers contains antibodies which, when combined with antigenic substances closely allied to those producing the Wassermann reaction, were capable of fixing the complement. Thus, Wechselmann and Meier were able to fix the complement by using syphilitic antigen and serum from leprous patients *(Deutsche medizinische Wochenschrift*, vol. 34, p. 1347*)*. The same result has been obtained by many other competent observers, and working along these lines the Hawaiian station investigators have been able to produce specific agglutinins for *B. lepræ*, by using the blood serum of a horse which had been injected with the cultivated lepra bacilli.

'Therefore the identification of the organism may be regarded as absolutely proved, and from the premises in the case one would seem safe in predicting that the near future will see the successful issue of the effort to find an efficient serum or vaccine against the ravages of the one disease which has always heretofore been regarded as heading the list of incurable chronic affections.'

In the Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India (*New Series*, No. 42, Calcutta, 1911, 9d.) Major E. R. Rost, I.M.S., and Captain T. S. B. Williams, M.B., I.M.S., describe their work on the leprosy bacillus. In 1909, Major Rost, with the assistance of Mr. Bansi Lal, isolated from three cases of nodular leprosy an acid-fast bacillus, which he was able to subculture, through successive generations, in pure growths possessing 'certain peculiar characteristics, resembling morphologically the bacillus of leprosy.' His culture medium consisted of '250 c.cm. of distilled volatile alkaloid of rotten fish, 250 c.cm. of weak Lemco broth without salt or peptone, and 50 c.cm. of milk.' Three days after tubes of this medium had been inoculated with leprous material, a slight stringy growth was visible at the bottom and revealed under the microscope acid-fast bacteria massed together in parallel arrangement. The author then found that in subcultures on nutrient agar and broth (without salt or peptone) a feebly acid-fast bacillus developed. Its acid-fastness was increased by growing in milk, and it was found that the degree of acid-fastness could be varied according to the fatty nature of the medium. Agar plate cultures were made, and these, three days after inoculation, 'showed discrete colonies about the size of a pin's head, opaque, orange-red, raised in the centre, humped and moist to the naked eye.' The organism is exceedingly pleomorphic. After forty-eight hours' growth its appearance is as in the nodules of a leper. But when the cultures are older, or when they are grown under unfavourable conditions of medium and temperature, 'degenerate forms are found which double or treble their usual length with a moniliform arrangement, and lose their acid-fastness. These break down after a few days into clumps of small acid-fast coccoid forms.' With the exception of minor differences, the characteristics of the cultures isolated from the three cases were the same. The cultures were tested experimentally upon guinea pigs, white rats, and rabbits by subcutaneous, cutaneous and intraperitoneal inoculation and by feeding; but all the results were negative. A monkey, after repeated injections with culture, developed clinical signs of the disease and showed nodules in which were found typical leprosy bacilli, but attempts to obtain a pure culture from the lesions proved unsuccessful. Major Rost has also utilized his cultures for the preparation of vaccines and has tried their effect upon volunteer cases in the leper asylum at Kemendine. He reports that 'of the ten cases in which this treatment has been adopted, two have now recovered; two are so much improved that apparently the remnants of the disease are very slight; and the remaining six have all improved in a remarkable manner.' Captain Williams reports that as a result of his work since the beginning of

1909 he has grown from five cases of leprosy, in circumstances which he considers preclude contamination, two apparently different organisms. Two of the cases occurred in Persia and three in Bombay. His later work has inclined him to the belief that the two organisms are really the same, but altered by environment. 'In ordinary broth,' he says, 'I have grown a streptothrix, somewhat similar to that described by Professor Deycke, while in other special media I have grown a 'bacillus' very similar to that grown by Major Rost in Rangoon. The 'bacillus' he regards as the bacillary form of the streptothrix. Captain Williams used as culture medium ordinary nutrient broth, which was inoculated from non-ulcerated lepromata. The tubes were kept at room temperature. During the period of incubation the broth remained absolutely clear, but after eight weeks 'small puff-ball growths appeared at the bottom of each tube, and gradually multiplied, growing upwards, and adhering to the side of the tube.' Microscopically, on staining by the Ziehl-Neelsen method, he found that the growths consisted of a non acid-fast streptothix, with masses of acid-fast bacilli lying amongst the meshes of the streptothrix. In subcultures, from the third onward, no acid-fast bacilli occurred. But under certain cultural conditions he was able to regain acid-fast forms, and, on the whole, the cultural reactions obtained on various differential media resembled fairly closely those obtained by Major Rost. Captain Williams is also trying vaccine treatment and seems to think that his results are encouraging.

A Report from British Guiana, recently laid on the table of the English House of Commons, brings up to date the record of the investigation of the value of nastin and benzoyl chloride which has been in progress at the Mahaica Leper Asylum in the colony in question for the past three years. The conclusions reached are not favourable to nastin, and only recommend benzoyl chloride as a palliative remedy. The investigator, Dr. E. P. Minett, Assistant Government Bacteriologist, concludes his report, which is remarkably succinct and yet adequately detailed, by indicating that so-called destruction of bacilli takes place in patients who are under treatment either by nastin or benzoyl, but does not appear to be hastened or otherwise influenced by either of them; it is a natural process which seems to accompany almost all cases of leprosy, and its activity varies both from time to time and also in different situations in the same patient. Cases of anæsthetic leprosy run a definite course, after which the disease seems to die out of itself, infectivity ceasing and cutaneous sensibility slowly returing. But these recoveries take place without any treatment whatever, and their rapidity is not apparently influenced either by nastin or benzoyl. Nodular cases do not tend to improve naturally, except in very rare instances, but the condition of these likewise is not affected appreciably by the drugs in question. On the other hand, benzoyl chloride is distinctly useful as a nasal spray or as a paint for ulcerating surfaces, since it quickly frees the discharges from bacilli; its regular use for this purpose is strongly recommended.

Dr. G. Armeur Hansen, head of the Leper Hospital at Bergen, Norway, and discoverer of the bacillus of Leprosy, died 12th February, 1912.

There are at this date in your Tracadie Lazaretto twenty-two patients, twelve males and ten females. Their ages range from eight to eighty. Eighteen are of French, two of English, one of Icelandic and one of Russian origin. One death occurred during the year, and three new cases were admitted.

Treatment with Nastin in addition to Chaulmoogra oil is being given a trial.

Your Leper Lazaretto at Darcy Island, B.C., has not been occupied by any leper during the last twelve months.

A Chinese lad, a patient in a Toronto hospital, was recently found to be leprous. As he had been less than three years in this country his deportation to his home in China came under the jurisdiction of the Immigration Branch of the Department of the Interior.

Smallpox.—The time should surely be past when it is necessary to make an argument as to the efficacy of vaccination to prevent smallpox. Still as there remain anti-vaccinationists and 'conscientious objectors' the well known truths have to be again brought forward from time to time. The State Board of Health of Maine issued in January last a comprehensive bulletin on smallpox and vaccination from which I shall borrow some statements: in support of the proposition that as vaccination advances smallpox recedes the bulletin states:—

With the advance of the practice of vaccination smallpox has receded. This has been true in every country in which vaccination has been introduced. The retrocession of smallpox has been in proportion to the care with which vaccination has been carried out and the degree of its approach to universality. This has been true whether the peoples were civilized or were lower in the social and civic scale. These conquests of smallpox have been made irrespective of whether the general conditions have been improved or have not. In some cases the mastery of the pestilence has been so sudden and compelling that all save those who prefer their voluntary sightlessness to clearness of vision might see that there is no logical explanation of the change other than the salutary influence of vaccination. The following recent instances of the victories of vaccination are presented:

Smallpox in Cuba under Spanish rule was one of the most fatal diseases. In Havana there were, in 1887-1888, 20,000 cases with 2,555 deaths. Vaccination introduced with the American occupation has been continued by the Cuban government through the central bureau of vaccination, whose report of 1903 showed 300,000 successful vaccinations and not a case of smallpox on the island.

Major Azel Ames, director of vaccination in Porto Rico, has told us about 'the absolute demonstration that comprehensive, compulsory vaccination, properly conducted, will alone certainly eradicate smallpox from any region or people.' Smallpox was endemic. It was somewhat prevalent in October, 1898, was epidemic in December of the same year, and it 'honeycombed' the island in January, 1899. In February there were 3,000 recent cases and the disease was spreading at a gallop. A systematic compulsory vaccination was begun in that month, and in four months 860,000 of the 960,000 inhabitants had been vaccinated. The work ceased and the disease disappeared.

According to one of the annual reports of Dr. V. G. Heiser, the chief of the Sanitary Department in the Philippine Islands in seventeen provinces there had been an annual mortality of 6,000 from smallpox among probably 25,000 or 30,000 cases in all; but in the twelve months following the completion of vaccination in these provinces there was not one death. Vaccination had been completed about a year before the report was written.

The few pieces of evidence presented under the preceding heading should go a long way in convincing normally working intellects but may not suffice for those who, for some time, have been steeped in the false doctrine that vaccination offers no protection against smallpox. To such as wish to be guided by the truth the following statements should be of interest:

In their book on the 'Acute Contagious Diseases' Welch and Schamberg say in regard to the protective power of vaccination:

'If it can be demonstrated that physicians and nurses in smallpox hospitals are protected by vaccination, this must be regarded as a crucial test. For if these persons, living in the same atmosphere with scores of hundreds of smallpox patients, breathing in their very exhalations, are enabled to escape the infection, it certainly should be possible for others much less exposed to acquire similar immunity.

'Experience shows that physicians, nurses and others, if recently successfully vaccinated, may live in smallpox hospitals with perfect safety. The immunity of employees (when properly revaccinated) is a uniform experience in practically all smallpox hospitals.

'Dr. Marson, physician to the Smallpox Hospital of London for many years, giving evidence in 1871, stated that during the preceding thirty-five years no nurse or servant at the hospital had been attacked with smallpox. Since that period one case only has occurred, and that in an unrevaccinated gardener. Thus, during a period of sixty years but one case of smallpox has occurred among hundreds of persons who were in the closest contact with the disease.

The immunity of revaccinated nurses and physicians against smallpox constitutes testimony in favour of the efficacy of vaccination which is irrefutable.'

Answering the question 'Are the antivaccinationists over converted' the bulletin continues:—

An English medical officer of health answers this question thus:

'The writer, many years ago, when in charge of the smallpox hospitals in the borough of Sunderland, had under his care a man who was a very strong antivaccinator. He was well known to the public, and was a leader among the labouring classes of the borough. His attack was comparatively mild, for, fortunately for him, he had been vaccinated when he was young, and consequently his attack was slight, and he soon became sufficiently convalescent to be able to observe the other patients in the ward in which he had been placed. It was not long before he commenced to talk about smallpox and vaccination, and also to note the different types of the disease that were under treatment in his ward. This led him to make inquiries as to the state of vaccination of these people, and soon he was enabled to say pretty positively, when new patients were brought into the ward, whether they had previously been vaccinated or not, with the result that before he left the institution he became a very confirmed believer in the power of vaccination. As he said: 'I cannot close my eyes to the fact that the disease in nearly every case in which the patient was unvaccinated was of a very virulent character, while among the vaccinated it was as a rule of a very mild type.' It is only by such an experience that one can ever hope to convert the antivaccinator, who, like every other 'anti,' is steeped in prejudice against his pet aversion.

'Another case is also of great, if melancholy interest. It is only one, but the first of many experiences which the medical officer of health could relate. In the early part of the year 1873 he entertained in his father's house one evening, at a time when smallpox was very prevalent, in the city of Cork, a number of medical students, together with a friend engaged in mercantile pursuits, and naturally the subject of vaccination was discussed. One of those present had recently obtained his medical qualifications, and he offered there and then to vaccinate the party. All accepted the offer with the exception of the gentleman named, who stated that he had never been vaccinated, because his father did not believe it was a preventative, and that it would annoy him very much if he were vaccinated then. Some nine or ten days later all the party went to the theatre together, and, sitting next to the writer, and three persons removed from the gentleman mentioned, was a woman, who without doubt had recently come from a bed of smallpox, for her face gave positive evidence that she had had a very bad attack. In seven or eight days the unvaccinated member of the party began to sicken, and within three weeks he was dead from malignant smallpox. At his funeral there followed a grief-stricken father, who within nine months was also laid beside his son, his heart broken by the knowledge of the fact, which he freely confessed, that his boy, who was a splendid type of muscular Christianity, would have then been living were it not for his folly.'

The Bulletin further quotes:—

Seven years ago the Department of Health of Chicago made the following declaration of their faith in vaccination:—

'First.—The true vaccination—repeated until it no longer 'takes'—*always* prevents smallpox. *Nothing else does.*

'Second.—That true vaccination—that is, vaccination properly done on a *clean* arm with pure lymph and kept perfectly *clean* and *unbroken* afterwards—never did and *never will* make a serious sore.

'Third.—That such a vaccination leaves a characteristic scar, unlike that from any other cause, which is recognizable during life, and is the *only* conclusive evidence of a successful vaccination.

'Fourth.—That no untoward results ever follow such vaccination; on the other hand thousands of lives are annually sacrificed through the neglect to vaccinate—a neglect begotten of *lack of knowledge.*'

As a supplement to their vaccination creed they state:—

'Not one of the 727 cases of smallpox discovered in Chicago within the last four years was found vaccinated as defined in the Vaccination Creed.

'Of the total number, 662 never had been vaccinated at all, though most of them claimed that they had. Examination of the arms proved that these attempts at vaccination were failures; there was no scar, and the patients finally admitted that the vaccinations when performed did not 'take.' A 'failure' is not a vaccination; therefore, these 662 cases had never been vaccinated.

'Of the remaining 65 cases, 56 had old, irregular, and doubtful scars, said to be the result of vaccination; but these were not characteristic; they were more like the scars from infected sores or wounds than those from vaccine. Only nine had typical (characteristic) scars; but these also were the results of vaccination made many years before and never repeated.

'In no single case of the 727 had the terms of the first article of the Vaccination Creed been complied with—vaccination had *not* been repeated until it would no longer 'take.' If it had been they could not have contracted smallpox.

'These 727 persons are examples of thousands of others who honestly believe they have been vaccinated, because they have had their arms scratched, something rubbed in, and a more or less painful sore has resulted. There is no operation so simple and so safe as vaccination when properly performed and cared for.'

Smallpox has presented itself at two of your Quarantine stations this year.

At the William Head station, B.C., the *Empress of India* and the *Protesilaus* brought the disease. And the *Princess Beatrice* of the coasting fleet of the Canadian Pacific S. S. Company was sent down by permission from Prince Rupert for disinfection and vaccination of the crew and 10 passengers, there having been a case of smallpox carried on the vessel between Prince Rupert and Queen Charlotte Islands.

In all three instances the disease was stamped out at the William Head Quarantine Station.

At the Grosse Isle Station in the River St. Lawrence six smallpox infected passenger steamships brought eight cases of the disease. The steamships *Dominion, Albania, Gothland, Corsican, Wittekind* and *Barcelona,* with an aggregate of 6,337 persons on board.

Here, as at William Head, the disease was stamped out at the Quarantine station.

Special temporary inspection for smallpox.—At the date of my last annual report owing to the prevalence of smallpox in neighbouring states to the south of the line special medical inspection of persons entering across the frontier was being carried out at North Portal, Saskatchewan, and at Fort Frances and Rainy River in Ontario. In consequence of the subsidence of the epidemic threatening you raised these temporary quarantine inspections on November 15th last.

In Prince Edward Island owing to the prevalance of smallpox in Nova Scotia, and New Brunswick, temporary quarantine inspection was being carried out at Georgetown at the date of my last annual report. This was supplemented on the 26th of

April, 1911, by the appointment of a special temporary medical inspector at the port of Summerside, and the enforcement of inspection at Charlottetown by your permanent quarantine officer there of all arrivals from the mainland, including those by the daily steamer from Pictou.

This special inspection was raised by you on the 18th of November last.

Typhus fever.—This disease so frequent amongst incoming immigrants in my early years in the public health service, and which I contracted in the discharge of my duty, is now rarely met with. It still is to be found in the crowded unsanitary parts of large cities and in Mexico, but not as formerly. Why it is I do not pretend to know, but the cerebral fever (typhus) which was the disease of crowded aggregations of persons a generation ago, under the titles of ship fever, jail fever, camp fever, and so on, has of late years been replaced under similar circumstances by the enteric fever (the wrongly named typhoid).

The *Medical Record* speaks of the similarity of mild typhus fever, and the so-called Brill's disease:

Those familiar with both diseases have for some time suspected that the symptom-complex so clearly described by Dr. Nathan E. Brill, which has become generally known as Brill's disease, was a mild form of typhus fever. From Brill's report it is apparent that he has recognized the similarity of the two diseases, for he says, 'in the case of an epidemic of typhus, in my opinion, it would be simply impossible to say that those cases which I have described were not mild typhus fever.' Nevertheless he refuses to admit the identity of the two diseases. Friedman, who had observed cases of typhus fever in Russia, laid special emphasis upon their similarity in a paper read before the New York Academy of Medicine in May, 1911. (*Medical Record,* September 16, 1911, p. 606). Louria of Brooklyn, in an article in the *Medical Record* of August 26, 1911, also notes the striking similarity of the two diseases, and quotes Goodall of London, who regards the two diseases as one and the same.

The recent findings of Anderson and Goldberger, which seem to show that the two diseases are identical, will, therefore, cause little surprise. These workers in experimenting with monkeys found that an attack of Brill's disease which they were able to produce in these animals by inoculation rendered the monkeys immune to the strain of typhus fever now prevailing in Mexico, and that the reverse was also true, namely, that an attack of Mexican typhus fever produced in monkeys an immunity to Brill's disease. This seems to indicate that the typus fever which has been prevailing in the plateau regions of Mexico, and locally is called 'tabardillo' is identical with the disease described by Brill. While the presumption is strong, it remains yet to be proven that the typhus fever of Mexico is the same as the typhus of Europe and Asia. This added information concerning a disease which had come to be recognized as a definite entity, but of which the etiology and relationship to other diseases were in doubt, has aroused much interest in New York city, where most, if not all, of the cases of Brill's disease have been reported. The disease is known to have been recognized, however in other large cities and very possibly greater numbers of cases will be encountered in the future and the occurrence of typhus fever in many large cities may be found to be not uncommon.

Russian physicians recognize a mild form of typhus in that country and say the type of the disease is so modified that the mortality is very low and instances of evident contagion are rare. Goodall asserts that a mild type of the disease is encountered among the Russian Jews in London, and many physicians practising among the same class of the community in this city believe that modified typhus fever exists here also. It would be strange if it did not, and the experiments of Anderson and Goldberger seem to show quite conclusively that it does.

The summary and conclusions laid down by recent observers are as follows:

1. The Rhesus monkey is susceptible to infection by inoculation with the blood from a case of 'Brill's disease.'

2. One attack of the disease in the monkey induces a definite immunity to a subsequent infection with virulent blood of the same strain.

3. Monkeys recovered from an infection with 'Brill's disease' have been found to be immune to a subsequent infection with virulent blood from a case of Mexican typhus fever.

4. Monkeys recovered from an infection with Mexican typhus fever have been found to be immune to a subsequent infection with 'Brill's disease.'

5. From the above results we conclude that the disease described by Brill is identical with the typhus of Europe, and inasmuch as the New York strain is undoubtedly of European origin, we may also conclude that the typhus of Europe and the tabardillo of Mexico are identical.

6. If this conclusion is correct, typhus fever has been present in New York city for a number of years and, according to verbal reports made to us, has occurred in other large cities of the United States.

7. These results make the clinical recognition and study of typhus fever of increased importance and necessitate the exercise of appropriate prophylactic measures.

With regard to the micro-organism of typhus fever the *Medical Record* has the following:

Another of the infectious diseases is yielding up its secrets to the persistence of the investigator. The infectious agent of typhus fever has been proved to exist in the blood of patients suffering from the disease, the virus has been transmitted through long series of monkeys, and the *Pediculus vestimentorum* has been demonstrated to be the chief if not the only agent whereby the infection is carried from one individual to another. The ultimate cause, however, has proved very elusive.

Predjetschensky (*Centralblatt für Bakterienkunde,* etc., 1 Abt., Bd. 55, Heft 3) describes an organism which he has succeeded in isolating from the blood of these patients. He was able to obtain pure cultures only by inoculating 200 c.c. of bouillon with from 2 to 5 c.c. of blood, drawn between the sixth and ninth day of the disease. It is described as a short, fairly thick bacillus with rounded ends, occurring singly or in chains. It is actively motile and is not stained with Gram. Bouillon is uniformly clouded with the formation of a grayish precipitate. Milk is coagulated in 3 or 4 days, gelatine is not liquified. On slant-agar it develops as an elevated growth with a glistening grayish-white film, the water of condensation being changed into a cloudy, gummy mass. On potato it forms a thick dull-gray film which later becomes brownish without the presence of gas bubbles. In dextrose bouillon it forms no gas but does produce acid. It does not form indol. On the Contradi-Drigalski medium there are produced raised blue colonies which after three days are surrounded by a rose colour; on Padlewsky medium with malachite green, golden yellow colonies from which begin to show a green tinge in three or four days.

The organism was agglutinated by the serum of typhus patients in a dilution of 1·10 in 1 hour, and of 1·40 in 4 hours, while controls with the serum of persons in health or suffering from other diseases showed no agglutination. Mice, dogs, and guinea pigs inoculated with a pure culture developed a fever and died, and the bacillus was recovered from their organs. The author was able also to cultivate this organism from the sputum of his patients and he thinks that its presence here may be the chief factor in the spread of the disease. This bacillus is, apparently, not unlike the one which Ricketts and Walker found in stained blood smears and which, in their opinion, belonged to the hæmorrhagic septicæmia group.

A typical case of typhus fever was diagnosed at your Grosse Isle Quarantine Station on the arrival there of the ss. *Sardinian* on June 14. The patient as well as all

exposed passengers and members of the crew were landed, and the vessel released after prompt disinfection.

The disease was stamped out at your Quarantine Station.

Beri-beri.—The *Journal* thus speaks of the etiology of this disease:

So many observations have been reported of late favouring the belief that beri-beri is caused by a dietary insufficiency, that this conclusion is now apparently well established. In a recent contribution to the subject, Fraser and Stanton not only have furnished additional evidence toward this view, but have carried the investigation of the dietary factor peculiarly lacking, to a point previously unattained.

The employment of 300 native labourers in the construction of a road through virgin Malayan jungle offered an unusually favourable opportunity for their work. By properly examining all candidates for employment it was possible to exclude with a presumption of certainty men already suffering from the disease; and regulation of all sanitary conditions precluded the possibility that these might influence the results. The labourers so circumstanced were divided into two equal parties, and housed some distance apart. One section was then fed on polished rice as the staple article of diet, the other on rice which had been parboiled before husking. The latter grain differed from the former in the preservation of a great part of the subpericarpal layers which are removed almost wholly by the more usual method of polishing. Of the two parties, the men fed on polished rice began to develop cases of beri-beri in three months, without the appearance of any cases in the other section. Conditions were then reversed, and after a somewhat longer period, the party previously exempt began to suffer from the disease, without any cases originating in the control party. The influence of place and the possibility of communicability were tested by the transfer of groups of sufferers, with negative results.

The polished rice thus responsible for the human disease was then tested by feeding to fowls. Eijkman and others had previously shown that by feeding chickens on such grain it was possible to produce in them an affection very closely resembling human beri-beri, both clinically and anatomically. Basing their experiments on this, Fraser and Stanton were able to cause a peripheral neuritis almost at will. It was found that the polished grain invariably caused the disease in a large proportion of the fowls if fed to them for a sufficient time. Substitution of parboiled rice, and the addition to the polished rice of the parts removed in polishing, served to protect the animals. Attempts to extract a soluble poison from the polished grain were unsuccessful, but on the other hand the extraction of unpolished rice with alcohol destroyed its protective power. The clue so obtained was followed up, and Fraser and Stanton succeeded in isolating to a certain point the element essential for protection. In addition to being extracted by alcohol, it was dissolved by 0·3 per cent. hydrochloric acid. An important constituent so removed is phytin—a complex organic compound with a high percentage of phosphorus pentoxid. As the amount of phosphoric acid in the grain had been found to give an index to its power to prevent neuritis, it was first thought that this might be the desired constituent; but feeding experiments contradict this view, while the extract after removal of the phytin was still effective.

Although it has not so far been absolutely proved that the peripheral neuritis of fowls is identical with beri-beri, there is no good reason for the contrary belief, so that quite probably the results of Fraser and Stanton will be found directly transferable to the human disease. While they unfortunately did not succeed in the ultimate isolation of the essential dietary factor, they have apparently carried the problem much further along, and more investigation should soon clear up its last uncertainties.

The neuritis is probably not due to lack of phosphorus compounds in the diet, as has been claimed. The neuritis-preventing substance is capable of dialysis and thus colloids are excluded from consideration.

Close on this announcement from the United States Army Board for Study of Tropical Diseases, has followed the report of Dr. Casimir Funk of the Lister Institute

in London. A careful chemical search for the effective agent shows that it is present in minute amounts only, probably not more than 0·1 gram per kilo of rice. 'The substance which is absent in polished rice and is contained in rice polishings is an organic base which is completely precipitated by phosphotungistic acid and by silver nitrate of baryta. The curative dose of the active substance is small; a quantity of substance which contains four milligrams of nitrogen cured pigeons.' If further investigation substantiates these claims it will afford another evidence of the profound importance of the hitherto underestimated 'accessory' components of our diet, even though they are present in what may be termed minimal amounts.

Human or other hair unmanufactured or uncleaned.—In consequence of the general movement in China for the abolition of the pigtail, it was thought that such hair might be imported into this country for trade purposes. You, therefore, in January last caused an amendment to the Quarantine Regulations to be proclaimed in the *Canada Gazette* to the effect that 'Human or other hair unmanufactured or uncleaned must be unpacked and disinfected by steam, or boiling water, before it is allowed entry into Canada.' And the following question was inserted in question No. 4 after the word 'Cargo': 'Is there any human or other hair unmanufactured or uncleaned in such cargo?'

Vessels from United States ports south of San Francisco.—For some time coasting vessels from San Francisco and ports north of it have, by ministerial order, under section 7 of the Quarantine Regulations, been excepted from routine quarantine inspection.

In February last, Dr. Watt, the superintendent of British Columbia quarantines, drew attention to the following facts: The vessels that clear from United States ports south of San Francisco are mostly coasting vessels, and have usually taken down cargo from British Columbia or have sailed to such southern port from San Francisco, or they are new vessels coming from England for the coasting trade in British Columbia, and simply calling for coal. The piers at which they touch are at some distance from the towns, and there is probably less contact with inhabitants on shore than is usually the case with vessels in port. The conditions as regards the health of the communities in southern California are just as readily ascertained as are those of the communities back of San Francisco, so the reasons apply as were accepted when the exception was made applicable to San Francisco and ports north thereof. Dr. Watt accordingly recommended that the exception might be made to include vessels from all ports on the Pacific coast of the United States. In this recommendation I concurred. And you were pleased to order that such ports be so excepted under section 7 of the Quarantine Regulations. These exceptions under section 7 are only temporary and during your pleasure, and can be set aside at any time by your order, should a community or a season become, or threaten to become, unhealthy.

International Hygiene Exhibition, Dresden.—To this exhibition models and plans from the Grosse Isle quarantine station in the St. Lawrence were sent. They were prepared by the Department of Public Works for the Minister of Agriculture. Dr. J. F. Hansberger, of Berlin, Ont., was sent in charge of our exhibit. In his report he says: 'I am glad to be able to report that I succeeded in having your exhibit placed in the pavilion of Great Britain, where it was assigned to a prominent position, opposite the main entrance, in the compartment devoted to contagious diseases. The daily attendance at the exhibition was from 15,000 to 25,000, so that thousands passed through the building every day. Regular hours for demonstrations were allotted to each department, but in addition I devoted considerable time each day in explanation to smaller parties, in both German and English, of our quarantine system and other matters pertaining to Canada, in which I found them exceedingly inter-

ested. I have reason to believe that this will result in some immigration of a good class of settlers, for since my return home I have received correspondence from persons desiring to come to Canada, a number of whom are already on the way, wishing to participate in the harvest excursions to the Northwest.

'The Canadian exhibit was much admired and commended by all. Compared with others of similar character in the exhibition, its outstanding features were its excellent location, complete equipment, thorough organization and rigid enforcement of all regulations.'

International Office of Public Health, Paris.—The monthly bulletins from this bureau were regularly received during the year. They give much valuable information as to the movements of infectious diseases and of the means employed by the different signatory countries to meet and control them.

Sleeping Sickness Bureau.—The bulletins of this bureau issued under the direction of the honorary managing committee in London have also been regularly received.

In both cases spare copies have been distributed to the provincial boards of health.

The Public Health Reports published weekly by the United States Public Health and Marine Hospital service contain most valuable information gathered from the United States consular agents and the medical officers of the service stationed abroad. This excellent service sustained a severe loss this year in the death of Surgeon-General Walter Wyman. He has been succeeded in the command of the service by Surgeon-General Rupert Blue.

Foreign and Domestic Reports.—These have been received from various points abroad both in Europe, Australia and the Orient, from the many states of the United States, and the many provinces of Canada, in weekly and monthly returns and bulletins, and are of the greatest use to this service.

Canadian Public Health Association.—The first and inaugural meeting of this new departure in public health work in this country was held at Montreal, December 13 to 15 last. The meeting was graced by the presence of Their Royal Highnesses Field Marshal the Duke of Connaught, the Duchess of Connaught, and the Princess Patricia. Addresses on public health were given by His Royal Highness, by the Right Hon. R. L. Borden, and the Hon. Mr. Burrell. And I gave my experience of the history and evolution of public health in Canada since pre-confederation days, at the request of the chairman, Dr. Starkey, Professor of Hygiene of McGill University.

National Biological Laboratory.—Another step in advance this year, the importance of which can hardly be overrated, is the inclusion for the first time of an item in the estimates of $25,000 towards the construction of Dominion biological laboratories. I have been urging this for at least a quarter of a century. In such laboratories the various vaccines, sera and antitoxins may be prepared and tested by men on salary and without any personal interest in their sale. They may be issued bearing the government stamp as a guarantee of purity and reliability, and marked with a date limit of efficiency. The general practitioner throughout the country will then know just what he is using, and both he and his patient will be much better protected than they are at present. Moreover in such national laboratories there may well be bacteriologists, chemists, &c., engaged in original research. This country may well rise above the position of hanging on to the skirts of other nations and waiting to hear from them. It is fully time that in such national laboratories Canada also should have her investigators taking their part in the advances of science.

Official visit from Australia.—In August last a telegram was received by His Excellency the Governor General from the Governor General of Australia to the effect that Dr. W. Perrin Norris, Director of Quarantine for the Commonwealth of Australia, was being sent on a visit abroad with a view to obtaining information regarding organization for the exclusion and isolation of quarantinable diseases and diseases under the Immigration Restriction Act at the principal ports in various parts of the world. By direction, I had Dr. Watt meet Dr. Norris on his arrival and show him over the William Head station. Upon his arrival here I explained our system, and took him down to and over the quarantine station of Grosse Isle in the River St. Lawrence; and at Quebec put him in touch with the immigration officials, by whom (Dr. Lavoie and Dr. Pagé) he was shown their methods most fully. Dr. Norris was gladly given every opportunity of studying both our separate methods in connection with the St. Lawrence ports of entry, handling of vessels, passengers, cargoes and crews. In Australia the medical services of quarantine and immigration are combined.

Circulars.—Circular letters were issued from time to time to your different officers, calling their special attention to various matters, during the year. On April 8, *re* Bubonic Plague in Eastern Java and in New Zealand; on June 16, *re* Plague in Glasgow; on July 18th, *re* Cholera at the New York Quarantine Station Hospital, from Italian ports; on July 27th, *re* bacteriological examination of all steerage passengers arriving at ports in Canada from ports or places infected with cholera; on November 28, *re* bacteriological examination of passengers from Italy suspected of being possible cholera carriers applying only to cholera infected vessels; on January 17, *re* disinfection of imported unclean human hair.

Official visits and inspections.—On the 3rd of April last I went to Kingston, Ont., by order of the then Minister to represent him officially at the launching of the new quarantine steamer *Polana* built by the Kingston Shipbuilders' Company, Limited, and destined for service at the station of Grosse Isle in the River St. Lawrence.

On May 16 I went to London, Ont., to attend the annual meeting of the Canadian Association for the Prevention of Tuberculosis.

June 7-9 the annual meeting of the Canadian Medical Association held in Montreal.

June 16 I left for the Atlantic coast and inspected the Leper Lazaretto at Tracadie, N.B., and the quarantine stations at Chatham and St. John, N.B., Halifax, Sydney and Louisbourg, N.S., Charlottetown, P.E.I., the quarantine buildings at Pictou, N.S., and the quarantine station at Grosse Isle, Que., in the River St. Lawrence.

August 4 I left for British Columbia. I inspected at Vancouver, Victoria, the Williams Head Quarantine Station and Darcy Island Leper Lazaretto, and in company with Dr. Watt, the superintendent of British Columbian quarantines, visited and inspected the quarantine station of Prince Rupert.

On my return trip leaving Vancouver on August 24 I stopped over at Kamloops to visit, on the invitation of Dr. Fagan, the Provincial Health Officer for British Columbia, the Tuberculosis Sanatorium at Tranquille. And I further stopped over at Edmonton, Regina, and Winnipeg to confer with the executive officers of the Provincial Boards of Health of Alberta, Saskatchewan and Manitoba on frontier and other public health matters in which the Dominion and those provinces are alike interested.

October 17-20 took the Australian Head of the Quarantine and Immigration Services to Grosse Isle and Quebec.

December 13-15 inaugural meeting of the Canadian Public Health Association at Montreal.

St. John Ambulance Association.—The organization of the Canadian Branch of this association of the Order of the Hospital of St. John of Jerusalem in England may well be included amongst the advances in public health work. Its teachings and results in first aid to the injured, nursing and hygiene are directed to lessen the sum of sickness and suffering and so aid in the betterment of the health of the people of Canada. The annual meeting was held in the Russell Theatre, Ottawa, on the evening of March 6, under the gracious patronage of Field Marshal His Royal Highness the Duke of Connaught, Grand Prior of the Order, who addressed the assembly, and presented the certificates to those who had successfully passed the examinations in the classes of the Ottawa Centre, 82 in number. The meeting was also graced by the presence of Her Royal Highness the Duchess of Connaught, and Her Royal Highness the Princess Patricia, both Ladies of Justice of the Order.

My official journeyings from coast to coast have given me the opportunity of doing a certain amount of missionary and organization work in connection with the Canadian Branch, of which I have the honour to be president.

Stations. Grosse Isle, Quebec.—Vessels inspected, 367; a decrease of 11 as compared with last year. The medical superintendent attributes this largely to labour strikes. He points out that passenger steamers were 60 per cent of total vessels inspected, which is an increase of 5 per cent over last year, and 56 per cent as compared with twelve years ago. The constantly increasing size and tonnage of the vessels being built may also have something to do with the diminished number, as in spite of it the total number of passengers and crews examined at the station was 193,313, an increase of 15,146 over last year. Eight steamers required thorough disinfection, besides the partial disinfection of many others. The vaccinations exceeded 6,000. Admissions to hospital, 838; largest number at one time, 313. The following infectious diseases were reported or discovered: Typhus fever, smallpox, diphtheria, scarlet fever, measles, retheln, varicella, mumps, erysipelas, and enteric fever. There were 7 deaths in hospital: from measles 1, enteric fever 2, diphtheria 2, gastro-enteritis 1, meningitis 1. Eight cases of smallpox were landed, from six vessels.

Owing to the threatening of cholera from Italy a bacteriological assistant was added to the staff as already noted. Bacteriological examinations were made of all immigrants from Italy, and two cholera carriers were discovered.

The quarantine steamer *Challenger*, condemned as no longer fit for the arduous inspection service for which she has been employed since 1886, has been replaced by the new steel steamer *Poland*.

Provision has been made by you for the following very necessary works and improvements at this station: Extension of the western wharf; residences for the bacteriologist, assistant medical officer, and nurses; laboratory and equipment; new hospital; new first-class detention building; and conversion of the present hospital into a detention building for relations awaiting the discharge from hospital of members of their families.

Rimouski, Que.—Advance substation of Grosse Isle. Vessels inspected, 32. Of these 6 were found to have infectious disease on board, and were directed to report at Grosse Isle for treatment.

Halifax, N.S.—Vessels inspected, 376, being 46 more than last year. Persons inspected, 118,639, being 17,045 more than last year. Admissions to hospital, 44; diseases, measles, tonsilitis and diphtheria. One death, from broncho-pneumonia, secondary to measles. A resident engineer has been appointed by you to look after the valuable lighting and disinfecting appliances at the quarantine station at Lawlor's Island. The service lost a most valuable officer in the unfortunate accidental drowning of the medical assistant, Dr. Doyle. Provision has been made by you for several much needed works and improvements at this station.

St. John, N.B.—Vessels inspected, 164; persons inspected, 39,223, an increase of 4,742 over last year. Thirty persons were admitted for detention; of these there were cases of measles, chicken-pox, rheumatism, and enteric fever. Provision has been made by you for needed improvements at this station also.

Sydney, N.S.—Vessels inspected 115, of these 95 were steamships and 20 sailing vessels. No quarantinable disease was found on any of them.

Louisburg, N.S.—Vessels inspected 27; no quarantinable disease.

Chatham, N.B.—Vessels inspected 21. No quarantinable disease.

Charlottetown, P.E.I.—Vessels from abroad inspected 9; in addition to this the daily steamer from Pictou was inspected from April 1 until August 23, and also any other vessels arriving from New Brunswick and Nova Scotia on account of the prevalence of smallpox in those provinces. Vaccination was performed upon all passengers not protected against the disease.

William Head, B.C.—Vessels inspected 161; persons inspected 33,896. There were 11,932 Chinese in steerage and 2,986 Japanese of whom 1,037 were women. There were 15 other Asiatics in steerage, and 15 stowaways. In crew list there were 4,528 Chinese and 3,515 Japanese. Two vessels from the Orient were quarantined for smallpox, and one coastwise passenger steamer was treated at quarantine at the request of the provincial authorities, there having been a case of smallpox on the vessel between Prince Rupert and Queen Charlotte Islands. The only other infectious disease met with was measles. Provision has been made by you for improvements and repairs to buildings, and also in the engineering department.

Victoria, B.C.—No vessels from abroad inspected.

Vancouver, B.C.—Vessels inspected 2. No quarantinable disease.

Prince Rupert, B.C.—No quarantinable disease brought to this port during the year. The quarantine hospital is now complete. You have made provision for the building of a wharf, and for other much needed requirements.

Tracadie Leper Lazaretto, N.B.—Three new cases were admitted during the year. One patient died. Present number of patients 22, 12 males and 10 females. As mentioned already trial is being made of nastin as a means of treatment.

Darcy Island Leper Lazaretto, B.C.—This lazaretto has not been occupied by any leper during the last twelve months.

Public Works Health Act.—Your inspector under this Act, Mr. Charles A. L. Fisher, reports for the territory from Winnipeg, Man., east to the Atlantic ocean, that the year has been an exceptional one in the almost non-appearance of infectious disease. He further reports that he has found the medical service given to be complete, and the sleeping quarters and boarding of the men to be fully equal to the very good conditions in that way reported previously.

Dr. A. E. Clendenan, your western inspector from Winnipeg to the Pacific ocean, reports that the standard of camp construction and of grade hospitals and the merits of the medical men are in advance of last year and the year before.

Medical Staff.—Additions and alterations: At Grosse Isle, owing to the ever increasing immigration and consequent work, and to the realization of the danger from cholera carriers, Dr. Coté has been appointed by you as second medical assistant, and Dr. Heagerty, bacteriologist and medical assistant.

At Halifax Dr. V. N. Mackay has been appointed by you as bacteriologist and medical assistant in place of Dr. Doyle, deceased.

At St. John Dr. Warwick has been appointed by you as bacteriologist and medical assistant.

At William Head Dr. W. P. Walker, who has been at that station since July 1, 1909, as bacteriologist and medical assistant, resigned to take up other work, and the position was filled by the appointment of Dr. J.D. Hunter.

I have the honour to be,
Sir,
Your obedient servant,

F. MONTIZAMBERT, M.D.,
Director-General of Public Health.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 2.

(G. E. Martineau, M.D.)

Grosse Isle, Que., March 31, 1912.

Sir,—I have the honour to submit this, my annual report, to March 31, 1912, as Medical Superintendent of the St. Lawrence quarantine service.

The quarantine year just elapsed has been a very unsanitary one, at least as far as quarantinable disease is concerned. From the very opening of the station, until late last autumn, we have unceasingly had to fight against infectious disease menacing to enter and spread into this country.

Six passenger vessels arrived in quarantine with smallpox on board, two with cholera, and one with typhus fever, so making a total number of more than 1,100 people exposed to contagion, and landed on the island for usual period of observation.

This means that 'quarantines' have succeeded 'quarantines' all the season round, so keeping the whole staff of the station very busily engaged.

On July 28, we received ministerial orders to the effect that a bacteriological examination of the stools of every Italian steerage passenger entering Canada be made, so as to exclude possible cholera carriers coming from Italy, where the malady was then prevailing. These were carried on for the remainder of the season, and so enabled us to detect one of these cholera carriers who was bound for this country.

We also paid special attention to incoming vessels from other infected places, as warned about by your Director-General of Public Health, from time to time during the season.

Outside of the usual quarantinable diseases with which we ordinarily have to deal, it might perhaps be noted, two very uncommon cases have made appearance on passenger vessels: cholera and typhus fever. The former case having not presented itself at the station for over thirty years, and the latter, although appearing to be more prevalent in other countries since a few years, is, however, regarded as an uncommon case in this country.

This year has also seen the extinction of the very interesting case of cholera detained in our hospital since November 17, 1910. As reported in my last annual report, the patient, a Russian, by name of Goulick Seide, was a cholera carrier. He so carried in his intestines the bacillus of the malady until a somewhat advanced date in this season, when he passed under Immigration Department's control, after bacteriological examination of his stools had proved he was perfectly free from all cholera germs. It may, however, be noticed here that he was not judged by the Immigration Department as a desirable immigrant, and was consequently deported to his country.

Inspection of vessels.—367 vessels have showed themselves for quarantine inspection this year, and been cleared at this port. This number shows a decrease of 11 as compared with last year, which decrease is largely due to labour strikes in Great Britain during the summer. Passenger steamers were 60 per cent of this total number, which is an increase of 5 per cent over last year, and 56 per cent as compared with twelve years ago.

The total number of passengers and crew examined at this station was 193,313, showing an increase of 15,146, if it is compared with last year.

They were divided as follows:—

Cabin	6,368
Steerage	97,386
Crew	47,062
Intermediate	41,766
Cattlemen	674
Stowaways	57

Infectious or contagious disease was reported or discovered at station on every passenger boat sailing to this port, on one or more occasions, with the exception, however, of the ss. *Lake Champlain* and *Pomeranian.*

Patient transfers from vessels to hospital numbered 102 this season.

On the following freight boats infectious disease was discovered: ss. *Bendu, Ionia, Georgetown,* and *Manchester Exchange.*

The following infectious diseases were reported or discovered: Typhus fever, smallpox, diphtheria, scarlet fever, measles, retheln, varicella, mumps, erysipelas, and enteric fever.

Deaths were reported on the following steamers: SS. *Ionian,* 1; *Willhead,* 2; *Mount Temple,* 1; *Ramore Head,* 1; *Mount Royal,* 1; *Ascania,* 1; *Megantic,* 1; *Tunisian,* 2; *Corsican,* 2; *Sicilian,* 1; *Montezuma,* 1; *Welshman,* 1; *Barcelona,* 2; *Montreal,* 1; *Pomeranian,* 1; *Montrose,* 1; and were due to: Syncope, 2; injuries during voyage, 3; lost overboard, 4; diphtheria, 2; cerebral hemorrhage, 1; congenital heart disease, 1; pneumonia, 3; pulmonary hemorrhage, 1; bronchitis, 1; infantile diarrhœa, 1; premature birth, 1.

Births were reported 19 times: 10 males and 9 females.

Typhus fever.—SS. *Sardinian,* Captain Hamilton, sailing from London on June 1, with 59 intermediate, 120 steerage and 87 crew, arrived in quarantine on June 14, with one case of typhus fever on board. The patient as well as all exposed steerage passengers, and also crew, having been landed, the vessel was released after having had her hospital and compartments occupied by exposed passengers thoroughly disinfected. No other cases having broken out amongst passengers and crew detained under observation, they were released on June 26. The patient fully recovered, and was discharged from the hospital on August 15.

Smallpox.—The following statement of smallpox infested vessels arriving in St. Lawrence this year is a summary of those cases handled at quarantine this season:—

Vessels.	Master.	From.	Sailed.	Arrived.	Passengers.		Steerage.	Crew.	Cases.
					Cabin	Intermediate.			
Dominion	Mendus	Liverpool	April 20	May 1	.....	313	724	181	2
Albania	Jeffries	Southampton	May 2	May 15	.....	27	557	132	1
Gothland	Prager	Rotterdam	May 8	May 19	.....	.....	1,778	128	1
Corsican	Cook	Liverpool	June 23	June 15	23	406	816	280	1
Wittekind	Willemsen	Rotterdam	Aug. 12	July 31	.....	.....	543	84	2
Barcelona	Nippersch	Rotterdam	Aug. 26	Aug. 14	.....	.....	284	61	1

All the above-named vessels have been given as quick a despatch as was possible, no one having been detained in quarantine for more than 36 hours. They were thoroughly disinfected, and everybody on board vaccinated, before allowed to proceed.

Vaccination also took place for all contacts detained on the island, and in many instances more than once for those upon whom it was not first successful. Several new cases broke out amongst them after their landing, and they consequently were transferred to hospital for treatment. No cases proved, however, to be fatal, and every smallpox patient recovered and was released when perfectly well.

On one occasion only was it necessary to land for refusal of vaccination on board the boat: a family of five ex ss. *Albania*.

Cholera suspects.—On two occasions this year we had to make bacteriological examinations of stools of cholera suspects passing through this quarantine. One was for a member of the ss. *Bendu's* crew, freight boat from Bombay; and the other one for a member of crew also on ss. *Albania* arriving at this station on October 29. In both cases bacteriological examinations were negative, although symptoms presented by patients were more those of cholera than of any other fever. One of those affected, however, died in hospital seven days after he had been taken ill.

The history of some of these patients might, perhaps, be of some interest here.

The ss. *Bendu*, Captain Neillson, sailed from Baltimore on July 8, with 35 crew and a water ballast. Before calling at that port she had been at Bombay, a place reputed to be generally infected, and arrived here on the 15th with three of her crew apparently suffering with cholera. One of the sick, Alexander Hargu, a Finlander, had first been feeling ill on July 13, viz., five days after having left Baltimore. First symptoms were great thirst and cramps in the stomach. Next day he had profuse diarrhœa, which lasted until he reached this port. When taken ashore here, he vomited and had stools nearly every half hour. For some time there was blood in his stools; his tongue was very dry and coated, and pulse was very weak, with temperature under normal. These were the symptoms until he died on July 20.

The history is about the same for other two patients ex ss. *Bendu*, with the exception, however, that one case at the end turned into a case of enteric fever, and that both recovered well and were subsequently discharged from quarantine on July 22 and August 15, respectively. It was found that they were suffering only from gastro-enteritis, due to drinking bad water carried on board. A bacteriological examination of that water proved it to contain lots of germs. Canned food employed by them was also examined, but was found to be sound and in good condition. The vessel was thoroughly disinfected, and had her water tanks emptied after the water contained in the same had been also disinfected. She was released on July 17 with another crew in charge of her. All the crew kept under observation was discharged on the 22nd, after it had been proved that we had not to deal with a case of cholera.

The other very doubtful case of cholera was one from the ss. *Albania*, October 17.

SS. *Albania*, Captain McNeill, sailed from Southampton on October 17, with 169 steerage, 123 crew, and arrived at station on October 29. One of her sailors, who had been on a vessel calling at Naples and other Mediterranean ports previous to his joining this vessel for this voyage, was presenting symptoms of cholera of a very typical character. He was taken ashore at this quarantine, and boat detained awaiting results of bacteriological examination, but same having been negative, the steamer was in consequence released immediately.

Cholera carriers.—Two cholera carriers have been located this year in the course of quarantine season. One was a sailor on board the ss. *Grampian*, and the other a passenger Italian from the ss. *Lake Erie*.

The ss. *Grampian* arrived at Grosse Isle on August 27. The man who was found to be a cholera carrier on board that steamer was English, and had been at Novorrossisk, which is a port in the Black Sea, seven or eight weeks before joining the *Grampian* at Glasgow. He never complained of any illness, with the exception, perhaps,

of a slight attack of diarrhœa some two days after having left Glasgow, viz., on August 21, on his way here. The diarrhœa that he suffered then looked more like enteritis than cholera, and when he reached here he felt perfectly well. He had no more diarrhœa, and nothing could lead us to suspect him as a cholera carrier. Nevertheless, bacteriological examination of his stools just proved the contrary. Under proper treatment, he gradually got rid of his germs, and was in condition to proceed on September 16.

The latter was that of an Italian coming from Valvasone, province of Udine, in the north of Italy. This immigrant arrived in quarantine on board the ss. *Lake Erie* August 7, with 32 other steerage passengers of the same nationality. Entering in the class of passengers upon whom bacteriological examination had been enforced, all 33 were landed for that purpose. And although the examination had given negative results on 32 specimens, it, however, proved that one of these thirty-three, named Vacchero Guiseppe, carried cholera bacilli in his intestines. He was then transferred to hospital for treatment until all germs had disappeared, and was discharged from quarantine on August 26.

With these two cases we have, thus far, dealt upon three cholera carriers at this station since last year, the first one being Goulick Seide, who has been carrying the vibrio of the disease for over six months. I think this is the longest case of cholera carrier known until now. We cannot but believe that during the course of the last past years, cholera carriers must have repeatedly landed on this continent, but whether through the weakening of microbes, or through the better conditions of hygiene now prevailing in civilized countries, no ill results have issued.

Some day it may happen that an individual bearing highly virulent vibrios may effect a landing, and then, if by chance he passes to some place where his foecal matters can contaminate a water supply, we may find the development of an apparently spontaneous epidemic of cholera. Indeed we are strongly inclined to attribute to this, rather than to those actually suffering from the disease, the gradual spread of cholera along trade routes. No quarantine regulations, it seems to us, can be devised against such a possibility. Fortunately, the chances of such an event appear to be singularly slight.

Quarantine work.—The work at this station has been very hard this year, it being the heaviest we have had for a long time. We have made a thorough disinfection of steamers on eight occasions. The total amount of people vaccinated was over 6,000. The total number of admissions to hospital amounted to 838; and we constantly had to treat a number varying from 25 to 313 passengers at same time, suffering from different diseases. 197 bacteriological examinations have taken place during the season, and 1,138 passengers have been landed for a quarantine of observation. We had two births and 7 deaths in hospital, which deaths were due to the following diseases: Measles, 1; enteric fever, 12; diphtheria, 2; gastro-enteritis, 1; meningitis, 1.

Staff.—Dr. Bélisle continued this year to be in charge of the Rimouski substation.

The appointment of a bacteriologist for this station has proved to be of inestimable value in the diagnosing of contagious disease. We have found in the person of Dr. Heagerty a very competent man to fill this position. He is attentive to duty and of good character. I may, perhaps, be permitted to express here my entire satisfaction with all services rendered by him, as well as by all other employees of this quarantine service.

The appointment of an interpreter as office steward on board the *Polana,* has also been of great help in the inspection of vessels. This has done away with the distressing scenes that used to occur when we landed foreign patients, and had no one to

explain to them why this was done. Besides that, he is of great advantage in helping to get true histories from sick people, this is what we were unable to do before. He is also very useful when we land passengers and keep them under observation at the upper end, as well as when they have to be transferred at hospital.

Improvements.—The exchange of the old ss. *Challenger* for the new steamer *Polana* may be regarded as the principal one at the station this year. She is a strong and good boat, and after a few improvements will be very nearly perfect.

Requirements.—The station having been kept open all the year round last year, and having been closed only on the 22nd of December this year, and as this is going to be the case every year in future, it would be necessary to make certain improvements towards rendering it comfortable for the winter. For instance, furnaces should be installed in certain houses, water pipes put under ground, and one of our boats should also be fitted and equipped for winter navigation. Besides that there is the building of a laboratory which is immediately needed, the erection of a new hospital to accommodate all passengers admitted, the present one having become too small, and the renewing of all old detention wooden sheds which date from 1832 and 1848. Also the construction of another first class passenger detention building. Some other minor repairs or works are still necessary, the list of which has been respectfully submittd to the Department.

Official visits.—We had this year the honour of the following official visits:

His honour the Lieutenant-Governor of this province, the honourable the Minister, and Deputy Minister of Agriculture, the Vice-Royal Consul of Italy, Dr. Viola; the Director-General of Public Health of Australia, Dr. Norris; the American Medical Officer at the Port of Quebec, Dr. Baily; and the Director-General of Public Health of Canada, Dr. Montizambert.

The whole respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

G. E. MARTINEAU, M.D.,

Medical Superintendent of the St. Lawrence Quarantine Service.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 2a.

(Ernest Belisle, M.D.)

Rimouski Quarantine Substation, April 1, 1912.

The Honourable the Minister of Agriculture,
Ottawa.

Sir,—I have the honour to submit to you my report for the year ending March 31, 1912.

Thirty-two vessels were inspected at this station during the season.

Infectious diseases were reported on the following vessels calling here to land English mails: On May 6, ss. *Virginian* had to stop at Grosse Isle for one case of measles; on May 12, ss. *Empress of Britain*, 1 case of varicella; June 9, ss. *Empress of Britain*, 1 case of chicken-pox; June 16, ss. *Victorian*, 2 cases of chicken-pox; on June 22, ss. *Empress of Ireland*, one sick person on observation; on November 17, ss. *Virginian*, 1 case of chicken-pox.

Of 32 vessels examined here 6 had to stop at Grosse Isle to land infectious cases.

I have the honour to be, sir,
Your obedient servant,

Dr. ERNEST BELISLE,
Quarantine Officer.

APPENDIX No. 3.

(N. E. MacKay, M.D., M.R.S.C.)

Halifax, N.S., April 1, 1912.

The Honourable the Minister of Agriculture,
Ottawa.

Sir,—I have the honour to submit this my annual report of this station for the year ended March 31, 1912.

The work of this station was uneventful during the year just ended. No vessel arrived in port with any of the major quarantinable diseases on board.

Number of vessels inspected 376, being 46 in excess of the preceding year; number of persons inspected, 118,639, classified as follows:—4,405 cabin; 19,649 intermediate, 55,746 steerage; 38,702 crew; 84 Chinese; 9 cattlemen; 6 stowaways—being 17,045 more than in 1910-11.

Minor quarantinable diseases were found on the following vessels:—ss. *Southwark*, from Liverpool, April 20, 1911, 2 cases of measles; ss. *Scotian*, from Glasgow, April 3, 1 measles; ss. *Mongolian*, from Glasgow, April 7, 2 measles; ss. *Hesperian*, Glasgow, April 10, 1 measles; ss. *Canada*, from Liverpool, April 10, 1 measles; ss. *Royal Edward*, from Bristol, April 11, 2 measles; ss. *Uranium*, from Rotterdam.

August 7, 1 measles; ss. *Volturno,* from Rotterdam, August 20, 2 measles; ss. *Empress of Ireland,* from Liverpool, December 8, 1 measles, bound for St. John; ss. *Uranium,* from Rotterdam, May 8, 2 cases enteric fever; ss. *Volturno,* from Rotterdam, May 28, 1 case enteric fever; ss. *Canada,* from Liverpool, January 28, 1912, 1 case measles for Portland, and one case of diphtheria for Halifax; ss. *Corsican,* from Liverpool, February 10, 1 case diphtheria; ss. *Empress of Ireland,* from Liverpool, February 9, 1 case of measles for St. John; ss. *Lituania,* from Libau, March 3, 3 cases of measles; ss. *Noordam,* from Rotterdam, March 31, 2 cases of measles.

Diseases other than quarantinable occurred or were found on the following vessels:—ss. *Scotian,* April 3, 1911, 1 case of pneumonia; ss. *Grampian,* November 24, 1 case of pneumonia; ss. *Volturno,* November 17, 1 case of pneumonia; ss. *Dominion,* December 30, 1 case of pneumonia; ss. *Oruro,* December 17, 1 case bronchitis, 1 of tumour; ss. *Teutonic,* December 7, 1 case of epilepsy, 1 of delirium tremens; ss. *Numidian,* December 14, 1 case of diarrhœa (child); ss. *Hesperian,* December 16, 2 cases of impetigo; ss. *Corinthian,* January 14, 1912, 3 cases lagrippe; ss. *Pretorian,* Sept. 6, 1911, 1 case of gastro-enteritis.

Death occurred on board the following vessels:—ss. *Southwark,* April 6, 1911, 1 death by suicide; schr. *Ida M. Clark,* June 7, from Falkland Islands, 1 death from beri beri; ss. *Pretorian,* from Glasgow, Sept. 6, 2 deaths from drowning (washed overboard); ss. *Palanza,* November 25, from Philadelphia, 1 man killed in engine room.

There was one birth on the ss. *Uranium* from Rotterdam, August 7, 1911, and 2 on the ss. *Corinthian,* from Liverpool, May 8.

There were 44 persons admitted to the station hospital during the year, between patients and their families, and 15 cases of sickness were treated in that institution, classified as follows:—13 cases of measles, 1 case of tonsilitis, and one of diphtheria. One death occurred from broncho-pneumonia, secondary to measles.

An electric plant is being installed in the ss. *Minoca.* The work which promises to be first-class is nearing completion.

A resident engineer was appointed about the middle of March to look after the disinfecting plant at the station.

In the sad death by drowning of my late assistant, Dr. J. J. Doyle, the quarantine service of this port lost a painstaking, obliging and capable officer.

Dr. Victor N. MacKay was appointed assistant port physician and bacteriologist in January last, and took up the work on the first of February.

A resident carpenter is needed at the station to keep the buildings in a proper state of repair.

I have the honour to be, sir,

Your obedient servant,

N. E. MacKAY, M.D., M.R.S.C., Eng.

Quarantine Officer.

APPENDIX No. 4.

(R. C. RUDDICK, M.D.)

ST. JOHN, N.B., April 1, 1912.

The Honourable the Minister of Agriculture,
Ottawa.

SIR,—I have the honour to submit this my annual report of the St. John Quarantine Station for the year ending March 31, 1912.

During the year just ended we have inspected at this station 164 vessels; number of persons inspected 39,223; classified as follows:—Cabin, 625; second-class, 3,743; steerage, 24,918; cattlemen, 92; crew, 9,845; an increase of 4,742 over last year.

Thirty persons were detained at our hospital for observation. We treated at the hospital this year 10 cases of measles, 4 cases chicken-pox, 2 cases of scarlet fever, 2 of rheumatism and 2 of typhoid fever. All made good recovery. At the present time we have two cases of measles.

Deaths during the voyage were reported on the following vessels:—ss. *Montezuma,* 3 from typhoid fever and 1 from broncho-pneumonia; ss. *Pomeranian,* 1 from pluro-pneumonia; ss. *Saturnia,* 1 cardiac failure; ss. *Montfort,* 1 cardiac asthma; ss. *Montreal,* 1 from epilepsy.

Our water service is still unsatisfactory, big leaks in the pipe causing a waste of water, and the city engineer contends it lowers the pressure of water in West St. John too much to have it turned on constantly, therefore we get water three times in a week, an hour and one half each time, making four and one half hours for each week. In case of fire on our station our buildings would be wiped out before we could get in communication with the city officials to have the water turned on. A new pipe should be laid without delay.

Our telephone cable has given out, and through the kindness of the Marine Department we connected with their cable so we have a sort of a service still. I trust that a new cable will be laid at an early date.

We also need very much a low water wharf. As it is now, we have to lighter very often, and as the steamship companies are asking us for a night service, it is almost impossible to do so, and at times utterly so.

We want a low water wharf, and a government owned steamer, with a permanent crew to live on board, then we can board at any time we are called on. This is one of our most pressing needs. Our port is developing rapidly, and the call for a night service is getting imperative.

New buildings for our staff are very much needed; they are housed in detention buildings at present.

The appointment of Dr. Wm. Warwick as bacteriologist and assistant to me fills a pressing need, and I am pleased to say that Dr. Warwick takes hold of the work in a manner which leaves nothing to be desired.

I have the honour to be, sir,
Your obedient servant,

R. C. RUDDICK, M.D.,
Quarantine officer.

APPENDIX No. 5.

(H. RINDRESS, M.D.)

NORTH SYDNEY, March 31, 1912

SIR,—I have the honour to submit my report for the year ending March 31, 1912. During this period there were 115 vessels inspected at this port. Of these 95 were steamships and 20 sailing vessels. The year passed has been an uneventful one—no quarantinable diseases having been found on any of the vessels inspected.

I have the honour to be, sir,
Your obedient servant,
HORACE RINDRESS, M.D.,
Quarantine Officer.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 6.

(FREEMAN O'NEIL, M.D.)

LOUISBURG, N.S., March 31, 1912.

SIR,—I have the honour to submit my annual report for this quarantine station for the year ending March 31, 1912.

There were 27 vessels with a total number of 755 men. No quarantinable disease of any kind was brought to this port during the year.

I have the honour to be, sir,
Your obedient servant,
FREEMAN O'NEIL, M.D.
Quarantine officer.

To the Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 7.

(J. BAXTER, M.D.)

CHATHAM, N.B., March 31 1912.

SIR,—I have the honour to submit herewith the annual report from this station, ending to-day. Owing to the depression in the lumber trade and also the vessels having been largely chartered in exempted ports the number of exemptions made was small, being for the year only 21, consisting of 13 steamships, 2 ships, 4 barques, 1 barquentine, 1 three-masted schooner. Men examined 417; no contagious disease.

I have the honour to be, sir,
Your most obedient servant,
J. BAXTER, M.D.,
Quarantine Officer.

To the Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 8

(PETER CONROY, M.D.)

CHARLOTTETOWN, P.E.I., March 31, 1912.

SIR,—I have the honour to herewith submit my report for the year ending March 31, 1912.

There has been no case of contagious disease at this station during the past year.

On account of the continued prevalence of smallpox in different sections of New Brunswick and Nova Scotia, it was considered advisable to carry on the daily inspection of steamers from ports in those provinces as in the previous year. This inspection was continued until August 23, 1911. Vaccination was performed upon all passengers not protected against the disease.

No case of smallpox developed within this province during the past year.

There were nine inspections of vessels from ports in the West Indies and from beyond the sea.

The hospital is in good state of repair and the accommodation is quite satisfactory.

I have the honour to be, sir,
Your obedient servant,

P. CONROY, M.D.,
Inspecting Physician.

To the Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 9.

(A. T. WATT, M.D.)

VICTORIA, B.C., March 31, 1912.

SIR,—I have the honour to submit this my report of transactions at William Head Quarantine Station for the twelve months ending March 31, 1912.

During the twelve months there were 161 vessels inspected. There was a total number of 4,637 cabin passengers and 15,752 steerage passengers. The members of the crews numbered 15,507. There were 11,932 Chinese in steerage and 2,986 Japanese, of whom 1,037 were women. There were 15 other Asiatics in steerage and 15 stowaways. In crew list there were 4,528 Chinese, and 3,515 Japanese. In this list of steerage passengers are included many going to ports in the United States and many who are returning to this country after being away on a visit to their home land. The actual new arrivals now number less than in formers years. The steerage passengers and Asiatic crews of all vessels sailing from Oriental ports were bathed and had their personal effects disinfected. Passengers and all new members of crew are vaccinated either before leaving or within the day or two following. These precautions undoubtedly lessen the possibility of an outbreak of disease during voyage. Another factor tending to lessen such outbreaks is the reduction as above mentioned in the amount of Asiatic immigration the result of restrictions enforced by the various Immigration Acts, since with fewer immigrants the chances of an outbreak of disease are proportionately less.

There were two vessels quarantined, the R.M.S. *Empress of India* and the Br. ss. *Protesilaus*, both on account of smallpox. The *Empress of India* arrived July 22, 1911, having reported the case by wireless two days previously. The case was one of the sailors and followed exposure to a previous case landed in Japan. The steerage passengers, some of the cabin passengers and part of the crew were detained at the station but no subsequent case developed. The ss *Protesilaus* arriving February 16, 1912, had a case of smallpox taken from the steerage. This was a Chinese passenger who became ill one day after leaving Yokohama. From this steamer a wireless report was also received so that by having steam ready, extra help engaged and guards on hand considerable time was saved to the steamer. With this case the infection had seemingly been acquired by the man in passing through Hong Kong where the disease was epidemic. He was vaccinated on the day after sailing and the vaccination acting in less time than the period of incubation of smallpox modified the disease in a marked manner and prevented the vesicles going on to pustulation. On this steamer there had been previously four cases of smallpox amongst pilgrims being carried from Jeddah to Singapore. At that time the crew had been vaccinated so that on next outbreak the majority could be considered protected and so be exempted from detention. No other cases developed amongst the steerage passengers held in quarantine.

The ss. *Princess Beatrice* of the coasting fleet of the Canadian Pacific Steamship Company was sent down from Prince Rupert by the provincial authorities, there having been a case of smallpox carried on vessel between Prince Rupert and Queen Charlotte Islands. The steamer was disinfected on December 17, and the crew vaccinated.

The only other quarantinable disease met with was measles. The cases were convalescent before arrival and further spread checked by effective isolation. A remarkable instance of what might happen with this disease if not controlled on a long voyage was exemplified in the case of the ss. *Oteric* which reached here May 1, 1911, after undergoing quarantine in Honolulu. This steamer had taken 1,550 Spanish and Portuguese steerage passengers through the Strait of Magellan to Honolulu and measles breaking out on the way there were over 500 cases, and there were 57 deaths therefrom.

While cases of bubonic plague have been reported in several of the ports from which vessels come to British Columbia, there have been no outbreaks reaching the extent such have reached in former years, and no cases have occurred on steamers leaving such ports. A plague infected rat was discovered in Seattle in September last and at occasional intervals infected ground squirrels are found in California. There have been three cases of plague in that state during the last twelve months, the infection being traceable to the ground squirrel.

No improvements could be undertaken at William Head station during past twelve months for the reason that appropriations were not available until too late in the season. Repair work could not be carried out for the same reason so with the exception of some general repairs which the staff were able to take in hand there is nothing to report with regard to such works.

There has been a modification of the order under section 7 of the Quarantine Regulations in regard to exemption of coasting vessels from inspection. Whereas formerly vessels from San Francisco and ports north thereof were exempted, this exemption has, since February 26, 1912, been extended to vessels from all ports of the United States on the Pacific coast.

On December 1, 1911, Dr. W. P. Walker, who had been at William Head since July 1, 1909, as Assistant Medical Officer and bacteriologist, resigned to take up other work, and the position was filled by the appointment of Dr. J. D. Hunter.

Last August, accompanying Dr. Montizambert, Director-General of Public Health, I went to Prince Rupert for conference with Dr. Tremayne, quarantine officer at that port, in regard the quarantine station now being established there.

Dr. W. Perrin Norris, Director of Quarantine and Public Health for the Commonwealth of Australia, who had been commissioned by the Federal Government to obtain information regarding organization for the exclusion and isolation of quarantinable disease, and diseases under the Immigration Acts at the principal ports in various parts of the world, spent two days last September in looking over the plant and general arrangements at William Head station and expressed particular approval of what he saw here.

The lazaretto at Darcy Island has not been occupied by any leper during the past twelve months.

I have the honour to be, sir,
Your obedient servant,
A. T. WATT, M.D.,
Superintendent British Columbia Quarantines.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 10.

(R. L. Fraser, M.D.)

Victoria, B.C., March 31, 1912.

Sir,—I beg to submit my report for the year just ended. No inspections were made at Victoria, as coasting vessels touching here were exempt by order.

Except being in consultation with Dr. Watt on quarantine matters I have performed no other duties this year.

I have the honour to be, sir,
Your obedient servant,
R. L. FRASER, M.D.,
Quarantine Officer.

To the Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 11.

(L. N. MacKechnie, M.D.)

Vancouver, B.C., March 31, 1912.

Sir,—Vessels inspected during the past quarantine year, 2. No quarantinable disease.

L. N. MACKECHNIE, M.D.,
Quarantine Officer.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 12.

(H. Ernest Tremayne, M.D.)

Prince Rupert, B.C., April 3, 1912.

Sir,—I have the honour to submit my report for the year ended March 31, 1912.

No quarantinable disease of any kind has been brought to this port during the above period.

I am glad to report that the quarantine hospital is completed. The furnishings will be installed shortly and it will then be ready for service.

I have the honour to be, sir,
Your obedient servant,

H. ERNEST TREMAYNE, M.D.,
Quarantine Officer.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 13.

(J. A. Langis, M.D.)

Tracadie, N.B., April 1, 1912.

Sir,—I have the honour to submit my annual report as medical superintendent to the Lazaretto, at Tracadie, N.B.

There are at present at the Lazaretto, 22 inmates, 12 males and 10 females; the youngest 8, and the oldest 80 years of age; 18 are French, two of English, one of Icelandic and one of Russian origin. One died during the year and three were admitted. One of those admitted is from Tracadie, the two others are from Lameque, New Brunswick.

One patient left in February, on a visit only, and without permission. He is a case of anæsthetic leprosy, and much improved by the hypodermic treatment with Nastin and Chaulmoogra oil. I have visited him since and he promises to return soon. He has no ulcerated sores, and is not a danger to the community, being well isolated with his family.

In the present report I shall say only a few words of the treatment with Prof. Deycke's Nastin, which we began in May last, having to report at length when we have finished with it. Of the 15 patients under this hypodermic treatment, with few exceptions all have maintained good general health. We had, in one case, a general reaction, and in a few severe cases, as far as we can see, arrest of the leprous symptoms. This in the nodular form of leprosy. Old anæsthetic cases do not seem to be much affected by it.

In December, 1911, some friends of the patients very kindly sent them a beautiful graphonola, with a number of records, other friends added their contribution which they used in purchasing a larger stock of discs. The sisters have taken charge of the instrument and entertained the patients several times a week during the long winter months. Through your favour they were also furnished with a beautiful

organ. Owing to lack of train service it has only recently arrived, but the patients are now using it. This relieves the monotony of their lives, and helps them to forget their sufferings. There is no doubt that such recreation and mental diversion reacts on the physical condition of the inmates, and this accounts for them keeping so unusually well during the winter.

For long years those in charge of the institution have realized that the patients should be furnished with more amusements, and the generous response of kind friends, in supplying the musical instruments, has met a long-felt need, and added very much to the good cheer of the inmates, and will be a source of pleasure and enjoyment to them for years to come.

I have the honour to be, sir,

Your obedient servant,

J. A. LANGIS, M.D.,

Medical Superintendent.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 14.

(CHAS. A. L. FISHER, J.P.)

MONTREAL, March 31, 1912.

SIR,—I have the honour to submit this my report for the twelve months ended March 31, 1912, as Public Works (Health) Inspector, for the territory from Winnipeg east to the Atlantic ocean.

During that period I have personally visited and inspected all such works covered by the Public Works (Health) Act, 1899, as have in any way been brought to my notice.

The term has again been an exceptional one, in the almost non-appearance of contagious and infectious diseases among the men employed on the various public works of the Dominion, coming under my inspection, there being only two outbreaks of smallpox, but although decreased about one-half from the number reported last year, there have been a good many cases of typhoid fever in the camp hospitals, mostly on the new construction work of the Algoma Central and Hudson Bay railway.

I am pleased to be able to report again, that on my several tours of inspection of the public works of the Dominion in my district for the past year, I found the medical service given to be complete, and the sleeping quarters and boarding of the men to be fully equal to the very good conditions in that way reported previously.

The number of public works coming under the regulations of the Act, in the territory east of Winnipeg, have been comprised exclusively of railway construction.

The following is a detailed report of the works I have personally visited and inspected during the past twelve months, as coming more or less, under the regulations of the Public Works (Health) Act, 1899.

NATIONAL TRANSCONTINENTAL RAILWAY.

This road is being built by the Dominion government, and at present all the sections between Winnipeg and Moncton, N.B., are now under construction, or have been completed.

I am pleased to report that on my visits to the works on said sections I found excellent hospital accommodation provided, and a duly qualified physician as district medical supervisor over each section of camps, which could be conveniently covered by him within the requirements of the regulations.

With the exception of some cases of typhoid fever, and one case of smallpox, there had been no outbreak of contagious disease, and the health of the men had been excellent.

I give below the extent and location of the camps, with other particulars of the works carried on by the various sub-contractors.

Superior Junction Section.—From Superior Junction east for 150 miles, to junction of the western section let to Messrs. E. F. and G. E. Fauquier. This is under contract to Messrs. O'Brien, Fowler and McDougall Bros., who have their headquarters at Fort William, Ont.

J. E. Joseph, of Pembroke, Ont., is the chief medical officer for the contractors, and J. M. McGrady, M.D., of Port Arthur, is the medical officer in charge of the work.

Two hospitals are yet maintained on parts of the contract. Access to the work is from Westfort, Ont., over the branch of the Grand Trunk Pacific railway from there to Superior Junction, or from Winnipeg over the section completed by the J. D. McArthur Co., and now being operated by the Grand Trunk Pacific Railway Company.

Superior Junction Camps.—Two gravel pits, Anderson & Mason, the Pembroke Contracting Co., Messrs. Bonfield & Harvey, A. J. Isbester, Messrs. Cameron & Chapelle. The Sturgeon Tie Co. and A. McDougall Bros., being the sub-contractors, and a steel gang operated by the O'Brien, Fowler and McDougall Bros. Company.

About 1,250 men were employed, who were located in ten camps, and housed and boarded in log and board dwellings by the sub-contractors, and the steel gang in boarding cars. The camps of some of the above named contractors are now closed, their work having been completed.

There were thirteen cases of typhoid fever, but the general health of the men and the sanitary conditions were good. There have been a few minor accidents, one death from syncope, one from phthisis, one crushed by derrick, and five from an explosion. Two good hospitals are still maintained on the work, one located about twelve miles from Superior Junction, and the other located towards the east end of the contract. W. Graham, M.D., and G. E. Denison, M.D., have been the medical officers in charge.

Nipigon Section.—From the east end of O'Brien, Fowler & McDougall Bros.' contract, east 75 miles. This is under contract to Messrs. E. F. & G. E. Fauquier, of Ottawa, who have sub-let it to the Nipigon Construction Company, Limited, who have their headquarters at Nipigon, Ont., and from which access is had to the work.

Nipigon Camps.—Messrs. McCaffery & McQuigge, Sherwood & Russell, Chambers & McColeman, D. W. Murray & Sons, and W. T. Parsons, were the sub-contractors from the Nipigon Company. There were six camps, access to which was by boat from Nipigon, thence over a tramway of fifteen miles, and then by boat over Lake Nipigon.

About 200 men were employed, who were housed and boarded in log buildings by the sub-contractors.

There had only been two cases of typhoid fever, the general health of the men, and the sanitary condition of the camps being good. There were two serious accidents, and three deaths, two from accident, and one from pneumonia. There were two hospitals maintained during the early part of the season, and then one up to the closing down of the work. Herbert H. Eedy, M.D., was the district medical officer of the

work, with residence at the hospital. All the above camps are now closed, some of the sub-contracts having been completed, and the others closed down for the winter.

Missanabie Section.—This is under contract to Messrs. M. P. & J. T. Davis of Quebec, who have sub-let it to Messrs. O'Brien, McDougall & O'Gorman, the contract covering the route from the east end of the Nipigon work, for 150 miles further east, to the junction of the Abitibi work, under contract to Messrs. E. F. & G. E. Fauquier.

Missanabie Camps.—There were fourteen sub-contractors on this work, and about 2,000 men employed, who were located in nineteen camps, and housed and boarded in wooden buildings by the sub-contractors.

There were no contagious diseases, but there were four deaths, one by jumping from train, one smothered by falling earth, and two from general debility. The general health of the men was excellent, and the sanitary condition of the camps was good. There were four hospitals on the work. A. Henderson, M.D., of Cochrane, Ont., is the chief medical officer, and he had four assistants, one in charge of each hospital, as follows: Dr. Kinsey, Dr. Levy, Dr. McKenzie and Dr. Richardson.

Abitibi Section West.—From about eight miles west of the Abitibi river, crossing westerly for 100 miles. This is under contract to Messrs. E. F. & G. E. Fauquier, of Ottawa. Access thereto is had from Cochrane, Ont. A. Henderson, M.D., is the chief medical officer of the work, with residence at Cochrane.

Abitibi West Camps.—E. F. Fauquier is the sub-contractor.

About 350 men are employed, who are located in five camps, extending over 50 miles of the work, and they are housed and boarded in log buildings by the sub-contractors.

There was one case of typhoid fever and one death from accident. The health of the men and the sanitary conditions of the camps were good. There was one well-fitted hospital on the work, the chief medical officer, Dr. Henderson, residing at Cochrane, and visiting the camps adjacent, and W. A. Costain, M.D., attending to the men generally. This section is about completed.

Abitibi Section East.—From about eight miles west of the Abitibi river, crossing easterly for 150 miles. This section is under contract to the Grand Trunk Construction Company, and was sub-let by them to Messrs. Foley, Welch & Stewart, who have their headquarters at Cochrane, Ont. The entrance to this work is from Cochrane, Ont. Only one hospital has lately been maintained on the work. John McCombe, M.D., is the chief medical officer, with two district medical officers as assistants.

Abitibi East Camp.—Messrs. Foley & Co., and Shea & Egan were the sub-contractors.

About 400 men were employed, who were located along the line in four camps and several house cars, and boarded and housed in wooden buildings and cars by the sub-contractors. There were no deaths. There were no serious accidents. The general health of the men and the sanitary conditions of the camps were good. One excellent hospital was maintained for these camps, located at Whitefish, within easy access of and fairly central to the construction work and camps. D. R. Cameron and D. B. Kennedy were the two resident medical officers latterly on the work, and had the assistance of Dr. T. A. Brandon in the early part of the season. This work is now about completed.

Ontario and Quebec Section.—From the easterly limit of the Abitibi East Section, sub-let to Messrs. Foley, Welch & Stewart, to a junction with the Quebec West Section at Weymontachene, Que., about 250 miles. This work is under direct contract to

Messrs. Macdonnel & O'Brien, and entrance thereto is over their other contracts for the Transcontinental, lately completed by them from Hervey Junction, Que. John McCombe, M.D., is the chief medical officer of the work.

Ontario and Quebec Camps.—Messrs. F. Munro & Co., Macdonnell Co., M. McCarthy, C. L. Hervey, Craig & Thompson, Doheny & Gordon, Frank Waters, Hugh Grant, H. McKinnon, Donovan & Co., are the sub-contractors.

About 2,085 men are employed, who are located along the line in nineteen camps, and boarded and lodged in wooden buildings by the sub-contractors.

There were two cases of typhoid, one of scabies and one of smallpox. There were two deaths, one being from typhoid and one by falling off train. The general health of the men and the sanitary conditions of the camps were good.

Three hospitals were maintained for these camps: No. 1, being a very large main hospital, with four separate wards, and located alongside the track about four miles west of La Tuque; No. 2, is located at the end of steel, and is an hospital car which is moved along the line as the work of laying steel progresses; No. 3, is located at East Cache, as convenient as possible for the west comps of the work.

Doctors Thos. H. Jackson, T. L. Raymond and W. F. Luton are the district medical officers of the work, one residing in each hospital. John McCombe, M.D., the chief medical officer of the work, resides at the St. Maurice hospital, four miles west from La Tuque, and takes charge of and gives the work his general supervision.

Quebec Section East, District 'B.'—From a point near the Quebec bridge easterly for a distance of 150 miles. This section is under contract to Messrs. M. P. and J. T. Davis, of Quebec, and is completed with the exception of the steel.

Notre Dame du Lac Camps.—Messrs. Cavicchi & Pegano, are the sub-contractors.

About 100 men were employed and were located in two camps, and boarded and housed in good board buildings by the sub-contractors. There were no contagious diseases, no deaths and no serious accidents. The health of the men was excellent, and the sanitary conditions of camps, good. J. B. Pregay, M.D., was the district medical officer of the work.

New Brunswick Section, District 'A.'—From a point near Grand Falls, westerly to the boundary between the provinces of New Brunswick and Quebec, a distance of about sixty-two miles. This was let to Messrs. Lyons & White, who have made their headquarters at Edmundston, N.B., and have sub-let the work to various sub-contractors, who had about 150 men employed and located in camps. There had been no contagious or infectious diseases or deaths. The general health of the men and the sanitary conditions of the camp had been good.

The General hospital at St. Basile, N.B., is used. Drs. J. A. Guy, and A. M. Sarmony were the district medical officers. The camps have been closed down since November last, but the work is not yet completed.

Grand Falls Section, District 'A.'—From a point near Grand Falls, N.B., to Plaster Rock, N.B., 31½ miles. This is under contract to the Willard Kitchen Company, who have their headquarters at Grand Falls, N.B.

Grand Falls Camps.—Messrs. Johnson Bros. & Whitehead Bros., are the sub-contractors.

About 150 men were employed by the Dominion Bridge Company, on bridge-work, who are located in two camps, and housed and boarded by the company in wooden buildings. There had been no contagious or infectious diseases, or serious accidents, the general health of the men being excellent and the sanitary conditions of the camps good.

A temporary hospital is maintained at Grand Falls, B. A. Puddington, M.D. is the district medical officer of the work, which is well advanced, but was closed down for the past winter, with the exception of bridge workers.

Chipman Section, District 'A.'—From Chipman, N.B., east eight miles. John W. McManus Company are the contractors. There was one camp with about 45 men employed, who were housed in log and board buildings, boarding themselves or boarded by the contractors. There had been no cases of typhoid fever, no deaths. The general health and sanitary conditions were fairly good. H. B. Hay, M.D., is the medical officer of the work, and his hospital at Chipman is used.

The total mileage of the National Transcontinental between Moncton and Winnipeg is about 1,804 miles. Between the two cities there has been laid to date by the contractors, including sidings about 1,475 miles of steel, and about eighty per cent of the work has been completed. The work was divided into six districts known as A, B, C, D, E, F, and contracts were given out for each district to chief contractors, with their headquarter address as follows:

DISTRICT A.

Corbitt Floesch Company, Fredericton, N. B., 50 miles.
J. W. McManus & Company, Chipman, N. B., 8 miles.
Toronto Construction Company, Toronto, Ont., 106 miles.
Willard Kitchen Company, Fredericton, N. B., 32 miles.
Lyons & White, Ottawa, Ont., 61 miles.

DISTRICT B.

M. P. & J. T. Davis, Ottawa, Ont., 197 miles.
Macdonnel & O'Brien, Montreal, Que., 107 miles.

DISTRICT C.

Macdonnel & O'Brien, Montreal, Que., 115 miles.
Foley, Welch & Stewart, Winnipeg, Man., 78 miles.

DISTRICT D.

Foley, Welch & Stewart, Winnipeg, Man., 72 miles.
E. F. & G. E. Fauquier, Ottawa, Ont., 100 miles.
M. P. & J. T. Davis, Ottawa, Ont., 44 miles.

DISTRICT E.

M. P. & J. T. Davis, Ottawa, Ont., 160 miles.
E. F. & G. E. Fauquier, Ottawa, Ont., 75 miles.
O'Brien & McDougall, Ottawa, Ont., 21 miles.

DISTRICT F.

O'Brien & McDougall, Ottawa, Ont., 130 miles.
J. D. McArthur, Winnipeg, Man., 247 miles.

The work on the National Transcontinental must be classed as among the very finest of railway construction, and the above facts indicate clearly the progress that has been made on the national undertaking.

Canadian Northern Ontario Railway, Port Arthur, Sudbury Section.—This road is being built by Messrs. Mackenzie, Mann & Co., from Port Arthur to Ruel, Ont., a distance of about 550 miles, and when completed is to form part of the Canadian Northern Transcontinental line from the Pacific to the Atlantic oceans.

Messrs. Foley, Welch & Stewart and the Northern Construction Co., are the chief contractors. Messrs. Mackenzie & Mackenzie, M.D.'s are the chief medical officers of all the work, and have their headquarters at Winnipeg.

Loon Camps.—Port Arthur to Reel Rock, a distnace of 60 miles, P. T. Walsh was the contractor, with eight sub-contractors, each for short distances, under him about 1,450 men were employed, who were located in twelve camps distributed along the route, and were housed and boarded in log or wood buildings by the various sub-contractors.

There had been no contagious or infectious disease, one serious accident and four deaths, three from general debility, and one from explosion. The general sanitary conditions and the water supply were only fair, but the general health of the men had been good.

The St. John Hospital at Port Arthur and the Nipigon Hospital at Nipigon, these being at each end of the work, were used as there is rail service over the Canadian Pacific line.

W. S. Hodgins, M.D., was the district medical officer on the work.

Nipigon Camps.—From Nipigon northeast about 90 miles. The Nipigon Construction Co., were the contractors with eleven sub-contractors under them. About 1,465 men were employed, who were located in fourteen camps, distributed along the route, and who were housed and boarded in wooden buildings, by and with whom they were employed.

There had been no contagious or infectious diseases, one fatal accident and nine deaths, three from pneumonia, and six from dynamite explosion. The general sanitary conditions were very good, the water supply excellent, and the general health of the men good.

There were two good hospitals, one at Nipigon, and one at Orient Bay. S. A. Mills, M.D., was the medical superintendent of the whole contract, and resided at the Nipigon Hospital, and C. E. McCutcheon, M.D., travelled the line of camps north from Nipigon.

Nimigos Camps.—From mile 155 to 209, Foley Bros., were the contractors with seven sub-contractors under them.

About 400 men were employed, who were located in seven camps situated along the route, and were housed and boarded in wooden buildings by the sub-contractors.

There had been no serious diseases or deaths, the sanitary conditions and the general health of the men having been good and the water supply excellent.

A good hospital was maintained at Nimigos, and E. L. McIntyre, M.D., was the district medical officer of the camps, and resided at the hospital.

Missanabie Camps.—From mile 209 to 265. Foley Bros. were the contractors, and had seven camps located along the route. About 160 men were employed, and were housed and boarded by the said contractors in wooden buildings.

There had been no serious diseases or accidents, and no deaths, the general sanitary conditions being fair and the health of the men good.

There was a good hospital maintained at mile 233, and E. S. Bissill, M.D., resided thereat, and was the district medical officer of the work.

Magpie Camps.—From mile 265 to 320. Foley Bros., were the contractors and had seven camps located along the route. About 150 men were employed who were housed and boarded in wooden buildings by the contractors.

There had been no contagious or infectious diseases, no serious accidents and one death from pneumonia.

The sanitary conditions were fair, the water excellent, and the health of the men good. A good hospital was maintained at mile 300, and R. T. L. Tucker resided thereat, and looked after the men at the several camps.

Ruel Camps.—These are the extreme easterly end of the whole contract, and the work runs west from Gowganda Junction, the terminus of the present branch line being operated west from Sudbury, Ont. Foley Bros. were the contractors and had fourteen camps located along the route.

About 550 men were employed, who were housed and boarded in wooden buildings by the contractors.

There had been no contagious or infectious diseases, there was one serious accident, and four deaths, one from pneumonia and three from a dynamite explosion. The general sanitary conditions were fair, the water supply excellent and the general health of the men good.

There were two hospitals maintained on the work one at mile 70, and one at mile 125, and the Sudbury hospital was used if thought beneficial. E. M. Burroughs, M.D., was the district medical officer, assisted by Dr. Weir.

Section Between Sudbury and Ottawa.—This is another section of the Transcontinental line, and is under contract from Sudbury to Pembroke, by Angus Sinclair, C.E., as chief contractor, J. Mitchell, M.D., of Toronto, is medical superintendent of this section.

Onwatin Camps.—There are six sub-contractors, having in all seven camps and employing about 400 men who are housed and boarded in wooden buildings by the said sub-contractors. There had been no contagious or infectious diseases and no deaths. There were three serious accidents, but none fatal. The general health of the men, the sanitary conditions of camps, and the water supply was good.

The St. Joseph's hospital at Sudbury was used. W. N. Robertson, M.D.C.M., was the district medical officer of the camps.

North Bay Camps.—There are three sub-contractors with one camp each, and about 200 men are employed, who are housed and boarded in wooden buildings. There had been no contagious or infectious diseases, deaths or serious accidents, and the health of the men and the general sanitary conditions of camps were good.

Dr. Campbell of North Bay was the district medical officer of these camps.

Mattawa Camps.—There were three sub-contractors on this work with three camps. About 400 men were employed, who were housed and boarded in wood buildings by the sub-contractors.

There were no serious diseases, deaths or accidents, the general health of the men being good, and the sanitary condition fair. There was a small hospital on the work, and one at Mattawa for major cases. N. B. Taylor, M.B. F.R.C.S., Ed., was the district medical officer of the work.

THE ALGOMA CENTRAL AND HUDSON BAY RAILWAY.

Main Line Extension.—From mile 68 to a connection with the Canadian Pacific railway at Hobon, Ont., thence to a connection with the Canadian Northern railway at Oba Lake, and thence to a connection with the Transcontinental railway at Hearst, Ont. The O'Boyle Bros'. Construction Co., the Superior Construction Co., Ltd., of Sudbury, Ont., and W. Kennedy of Sudbury, Ont., were the chief contractors.

About 2,250 men were employed who were located in thirty-six camps distributed along the route, and were housed and boarded in wooden buildings by the various sub-contractors or the Federal Commissary and Supply Company.

There were four cases of typhoid fever and one death from pneumonia. The general health of the men, and the sanitary conditions of the camps were good. There were a few minor but no serious accidents. Four good hospitals with nurses are maintained on the work, viz. at Hobon, Missanabie, Oba Lake, Hearst and another is under construction further out on the work.

R. McLean, M.D., of Sault Ste. Marie, Ont., is the chief medical officer, and has had the following assistants on the work during the year as district medical officers, viz.: Doctors P. J. Kennedy, H. Mohan, W. A. Strickland and G. B. Kindrick.

Michipicoten Branch.—From Michipicoten Harbour, southeast towards Sault Ste Marie, O'Boyle Bros. Construction Company were the chief contractors, with Lynch, Peckham & Gorman, Hicks & Furlong, and Hartz & McDougald as the sub-contractors.

About 600 men were employed, located in three camps and housed and boarded in log buildings by the sub-contractors. There were two cases of typhoid fever, and two cases of varioloid smallpox, but no deaths. There were two serious accidents, but none fatal. There is an hospital within easy reach of the camps. Jas. R. McLean, M.D., is the chief medical officer of the work, and W. G. Cook, M.D., is the resident and district medical officer on the work.

Algoma Eastern Branch.—From Little Current, Ont., north to Whitefish, &c. The Superior Construction and the O'Boyle Bros. Construction Company were the chief contractors and sub-let the same in small contracts.

About 1,600 men were employed, who were located in twenty-one camps along the route, and were housed and boarded in log buildings by the sub-contractors. There were twenty-two cases of typhoid fever and one of measles. There were four deaths, one from apoplexy, one from diphtheria, one from drowning and one from injury by dynamite. The general health of the men, and the sanitary condition of the camps were good.

The General hospital at Sudbury or at Sault Ste. Marie were used when necessary. Jas. R. McLean, M.D., is the chief medical officer of the work, and had as assistants at the camps, Doctors J. C. Kidd, H. A. Turopsky, Wm. H. Ochs, J. H. Blucker and W. E. Wilkins.

GEORGIAN BAY AND SEABOARD RAILWAY.

Canadian Pacific Railway Construction.—From Victoria Harbour, Ont., to Bethany, Ont., 88 miles. J. S. Metcalf & Co., H. Willwood and the Toronto Construction Company were the sub-contractors.

About 550 men were employed, located in six camps along the route and looked after by local doctors residing in the neighbourhood. There were no serious diseases, but there were two deaths, one from pneumonia and one from accident.

This work is now about completed.

QUEBEC AND SAGUENAY RAILWAY.

Messrs. O'Brien & Doheny were the chief contractors, with headquarters at Quebec. The contract was for about fifty-five miles from Cap Tourmente to Pointe-à-Pic, P.Q.

About 1,000 men were employed, who were housed and boarded in good quarters by the sub-contractors of whom there were twelve in number.

There was one case of smallpox and eleven cases of typhoid fever. There were four fatal accidents and six deaths, two from explosions, two from drowning and two from typhoid fever. The general health of the men was good, and the sanitary condition of the camps excellent, the tide washing away all garbage.

The Sisters' hospital at Baie St. Paul, and the Jeffrey Hale hospital at Quebec were used, patients being transferred thereto on the steamer *Thorn* belonging to the contractors, and which is used continually on trips between camp points.

John McCombe, M.D., is the chief medical officer of the work, and the district medical officers assisting him were Dr. Arthur Fournier of St. Anne de Beaupre, Dr. E. Tremblay of Baie Ste. Paul, and Dr. James Benny, who visits the camps below Dr. Tremblay's district. This work was closed down for the winter.

On the above public works which cover the territory east from Winnipeg, Man., during the twelve months reported on, there was an average of 17,155 men employed, with 55 qualified medical officers in charge of camp hospitals and camps.

Cases of contagious and infectious diseases—

Diphtheria	1
Erysipelas	2
Scabies	1
Measles	1
Smallpox	4
Typhoid fever	58

Causes of deaths as under—

Pneumonia	6
Apoplexy	1
Syncope	1
Acute phthisis	1
Gangrene	1
Diphtheria	1
Metean scinosis	1
Typhoid fever	6
General debility	4
Drowning	3
Accident	2
Jumping off train	1
Killed by cars	1
Killed by falling earth	1
Killed by derrick	1
Crushed by pile	1
Dynamite explosions	18
Total deaths as above	50

In closing this report for the past twelve months, I am pleased to be able to draw your attention to the fact that although the number of men employed shows a considerable increase, the cases of typhoid fever have been decreased almost one half, and the deaths fewer than those reported in the previous year. This I consider as due to the sanitary conditions in which the camps were kept, and the care and attention given by the contractors and medical officers in carrying out sanitary conditions, and such clauses of the regulations of the Public Works (Health) Act, 1899, as applied thereto.

In concluding this report, I beg to suggest for your attention, that for the benefit and convenience of contractors and district medical officers of camps, and for the

welfare of employees on public works, that the regulations at present applying under the said Act, be amended within as little delay as possible.

I have the honour to be, sir,

Your obedient servant,

CHAS. A. L. FISHER,

Public Works Health Inspector.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 15.

(A. E. Clendenan, M.D.)

Edmonton, Alta., March 27, 1912.

Sir,—I have the honour to submit my report for the year ended March 31, 1912, as Public Works Health Inspector. The following is a list of the public works of western Canada, noting the contracts, the medical service supplied, and comments on local conditions. On the whole, there have been few cases of contagious or infectious diseases, with the exception of the Grand Trunk Pacific on the eastern slope of the Rocky mountains. They have had the experience of other transmountain roads in this respect, making it strongly suggestive that the typhoid bacillus is indigenous in the district. A contagious disease known as hoof-rot in horses, also infects the men in a few cases. Both these diseases affect horses and men alike in the area mentioned.

The standard of camp construction and of grade hospitals and the merits of the medical men are in advance of last year and the year before. The old charge of fifty cents on prairie work and seventy-five cents on rock work has advanced everywhere to seventy-five cents and one dollar respectively. The quality of the service requested by employees and demanded by your inspector cannot be furnished at less than present deductions from wages. The cards which the Public Works Health Act declares shall be posted in camps are practically never put up. The clause specifying the minimum charge creates such a dissension among employees that neither medical men nor contractors will have the cards exposed.

The custom of erecting telephone lines along the right-of-way of important railroad contracts has greatly improved the medical service. Few complaints have been received, and those on investigation, while having some merit, had behind them other motives than a public health grievance.

A clause ought to be inserted without delay in the Railway Act to punish by fine or imprisonment the putting off of dynamite without giving warning. A great indifference to the menace that blasting is to neighbours and travellers, is shown by many contractors and especially station-men on railroad work. The engineers warn them, and the police find themselves impotent to prosecute owing to lack of authority. The British Columbia provincial acts do not cover the point.

The Skeena river which is followed by the Grand Trunk Pacific from Prince Rupert inland does not lend itself to a public highway during the winter season for one hundred and sixty-five miles, so as soon as the grade is passable, it becomes the only roadway. Practically all traffic is related to railroad construction. One hundred miles was graded and ballasted at the time of my visit and steel was being laid on the remainder. There is a general order of the Railway Commission not to carry passengers on skeleton tracks. Workmen were being engaged and shipped to the end

of the completed roadbed in an inhospitable part of the country, where there were no comforts, and but the barest necessities, if they had money and their own bedding. Over this sixty-five miles of track, men had to either walk and carry their luggage or affect to steal a ride on construction trains, for the freight conductors had emphatic orders from the divisional superintendent at Prince Rupert not to let any person ride. I saw as many as twenty-six men 'beating their way' on one train from one construction train to the next as the railroad crews connected and passed material cars along. The ties and flat cars are more or less icy in the winter, yet all these men stayed out riding through the cold wintry night on top of high loads of ties that frequently shift en route. They had to do it, or make their way back without a pass and in most cases, to return was impossible. Whenever the trains met at a siding where there was no shelter, all hands were put off on the right-of-way. On one night observed, the men mentioned above, tramped up and down from 3 a.m. until 11 a.m., and could get nothing to eat until 12.30 p.m. This condition occurs in a more or less aggravated form every time there is an advance made in track-laying. It is quite unnecessary.

Canadian Northern Railway—Port Mann to Kamloops, B.C.—Contractors Northern Construction Company, in charge of medical service is Dr. Robert MacKenzie, Vancouver, B.C., with six doctors on the line, and five hospitals.

Canadian Northern Pacific Railway—Victoria, B.C. to Alberni.—Contractors, Grant, Smith & Company. In charge, medical service, Dr R. MacKenzie, with two doctors assisting, and two hospitals on the line.

Kettle Valley Railway.—Contractors, MacDonald, Gzomski Company, and L. M. Rice & Company, medical service by Dr. Ker, with three assistants and three hospitals.

Canadian Northern Railway—Stettler to Rocky Mountain House.—Contractors, Northern Construction Company. In charge of medical service, Dr. Chas. MacKenzie, Winnipeg, Man. Two doctors on line, and two hospitals.

Canadian Pacific Railway, Castor to Sixty Miles East.—Contractor, Frank Jackson. In charge of medical service, Dr. McPherson, Castor.

Central Alberta Railway.—Contractors, Archibald & Co. In charge medical service, Dr. Jamieson, Red Deer, assisted by one doctor. Two hospitals.

Canadian Pacific Irrigation Co.—Contractors, Janse, McDonald & Co. In charge of medical service, Drs. Ker and Hazard, Calgary, with two assistants and two hospitals.

Canadian Northern Railway, Vegreville-Calgary.—Contractors, John Breckenridge. Dr. Jardine in charge, with one hospital.

Southern Alberta Irrigation Co.—Contractor, D. F. McArthur. Two doctors and one hospital in service.

Canadian Northern Railway, Camrose to Strathcona.—Contractors, Cowan Construction Co. In charge of medical service, Drs. Stewart and Smith, with one hospital.

Canadian Pacific Railway, Elko to Waldo, B.C.—Contractor, Janse McDonald & Co., in charge Dr. Saunders, with hospital at Fernie, under Drs. Corson and Bonnell.

Kootenay and Alberta Railway Company, Pincher Creek to Beaver Creek.—Contractors, Grant, Smith & Co. On medical service, Dr. Turcott, with one hospital.

Canadian Pacific Railway, in Strathcona.—Contractor, D. Fitzgerald. In charge medical service, Dr. Archibald, with one hospital.

Grand Trunk Pacific Railway, Tofield, Calgary Line.—Contractor, Geo. H. Webster. In charge of medical service, Dr. Jas. Thompson, with one hospital.

Canadian Northern Railway, North Battleford, Athabaska Landing.—Contractor, Jas. W. Millar; Dr. J. H. Jackson, with one hospital, in charge.

Grand Trunk Pacific Railway, Oben-Battleford.—Contractor, J. Dandelin, Dr. Stanley Miller, with one hospital in charge of medical service.

Grand Trunk Pacific Railway, Young-Prince Albert.—Contractor, J. D. McArthur & Co., Dr. R. D. Scott, with one hospital in charge.

Grand Trunk Pacific Railway, Rossburn Extension.—Contractor, Malloy Bros., Dr. E. M. Vesey with one hospital in charge of medical service.

Canadian Northern Main Line West of Edmonton.—Contractors, Cowan Construction Co. In charge of medical service, Dr. Chas. MacKenzie, with four doctors and three hospitals on work.

Grand Trunk Pacific Railway, Brazeau Branch.—Contractors, Phelan & Shirley. In charge of medical service is Dr. Shilabeer, with one hospital.

Canadian Northern Railway, Grande Prairie Line.—Contractor, Northern Construction Company. In charge of medical service is Dr. J. A. Reid, with one hospital.

Canadian Pacific Railway, Ogema Line.—Contractor, Mr. Lamoureux. Dr. Allen with one hospital, in charge.

Grand Trunk Pacific Railway, Moosejaw Line.—Contractors, Rigby, Hyland and Plummer. On inspection I found no medical service had been provided by the contractors. On receiving instructions, Dr. Bawden with a hospital in Moosejaw was employed.

Grand Trunk Pacific Railway, Regina-Frobisher Branch.—Contractor, D. F. MacArthur. Dr. Thompson, with one hospital and one assistant, on the work.

Canadian Northern Railway, Maryfield-Moosejaw.—Contractor, Cowan Construction Co. The medical service is furnished by Dr. Chas. MacKenzie, who has one doctor and one hospital.

Canadian Northern Railway Co.—Contractors, Northern Construction Co. Dr. Oliver, and one hospital on the work.

Canadian Northern Railway Co., McLeod-Pincher.—Contractor, Cowan Construction Co. In charge of medical service is Dr. Chas. MacKenzie, with one doctor and one hospital on the work.

Grand Trunk Pacific Railway, Battle River and Cut Knife Bridges.—Contractor, John Gunn, Dr. Stanley Miller, with one hospital in charge.

Canadian Northern Railway, Pembina Bridge.—Contractor, C. H. Kenny & Co. In charge, Dr. Reid, with one hospital.

Grand Trunk Pacific Railway.—Contractors, Foley, Welsh & Stewart. In charge of medical service is Dr. Richardson, with two assistants, and two hospitals on main line through Yellowhead Pass.

Esquimalt and Nanaimo.—Contractors, Moore and Pethick. In charge of work is Dr. R. MacKenzie with one doctor and one hospital on the line.

Grand Trunk Pacific Railway, Main Line, Prince Rupert End.—Contractors, Foley, Welsh & Stewart. In charge of medical service is Dr. Ewing, with three men and three hospitals on the work.

A. E. CLENDENAN, M.D.,
Public Works Health Inspector.

The Honourable
The Minister of Agriculture,
Ottawa.

APPENDIX No. 16.

SPECIAL MANGE ORDER FOR ALBERTA AND SASKATCHEWAN.

By Order in Council dated 8th June, 1911.

Whereas the disease of Mange exists among cattle throughout those portions of the Provinces of Saskatchewan and Alberta which may be described as bounded by the International Boundary, the Rocky Mountains and a line drawn as follows:—

A line from the Rocky Mountains along the northern boundary of the Stoney Indian Reserve to the line between ranges 5 and 6 west of the 5th meridian, thence north along that line to the line between townships 40 and 41, thence east along that line to the 4th principal meridian, thence south along the 4th principal meridian to the Red Deer River, thence along the Red Deer and Saskatchewan rivers to the line between ranges 7 and 8 west of the 3rd meridian, thence south along that line to the International boundary.

Therefore, His Excellency in Council is pleased, in virtue of the provisions of Chapter 75, of the Revised Statutes of Canada, 1906, to order that the annexed regulations relating to Mange in cattle in certain portions of the Provinces of Saskatchewan and Alberta, shall be and the same are hereby established.

Regulations.

CATTLE FOR SHIPMENT OUTSIDE THE AREA FOR PURPOSES OTHER THAN IMMEDIATE SLAUGHTER.

1. Cattle intended for grazing, feeding, breeding purposes or milk production, *or any purposes other than immediate slaughter* shall not be removed or be allowed to move out of the above described tract, nor shall any railway company accept or load any such cattle for shipment, unless they are accompanied by the certificate of a regular salaried Veterinary Inspector of the Department of Agriculture stating that they are free from disease and that they have been, within a period of thirty days immediately preceding the date of shipment, treated under the supervision of a regular salaried Veterinary Inspector and in a manner satisfactory to him, and that they have not, since being so treated, been exposed either directly or indirectly to the contagion of Mange.

CATTLE FOR IMMEDIATE SLAUGHTER OUTSIDE THE AREA OR FOR EXPORT TO EUROPE.

2. Cattle intended for immediate slaughter or for export to Europe shall not be removed or allowed to move out of the above described tract nor shall any railway company accept or load any of such cattle for shipment, except under the following conditions:—

(a) Cattle, *other than those consigned to Winnipeg or to points in Canada east of Winnipeg,* shall be removed or allowed to move out of the above described tract, either by rail or otherwise, only when accompanied by the certificate of a Veterinary Inspector of the Department of Agriculture, stating that they have been examined by him and have been found free from infection of Mange and other contagious disease.

(*b*) Cattle, *consigned to Winnipeg or to points in Canada east of Winnipeg,* whether originating within the above described tract or not, shall be inspected at Winnipeg, and no railway company shall release such cattle at Winnipeg, or load such cattle for re-shipment therefrom, until they have been submitted by daylight

to a Veterinary Inspector of the Department of Agriculture and certified by him to be free from Mange and other contagious disease.

(*c*) Cattle found on inspection to be affected with Mange or other contagious or infectious disease shall, except as hereinafter provided, be dealt with as may be ordered by the Veterinary Iuspector.

INFECTED CATTLE FOR IMMEDIATE SLAUGHTER WITHIN THE AREA.

3. Cattle showing evidence of Mange, originating in a place which has been declared to be an infected place, may be removed therefrom for shipment by rail for slaughter at a given destination within the quarantined area only, in the judgment of a regular salaried Veterinary Inspector who, if he sees fit, may issue a license for such removal, as provided in Section 23 of the Animal Contagious Diseases Act.

4. In the event of any cattle affected with Mange but which have not originated in a place declared to be an infected place being presented for shipment by rail such cattle, together with any others with which they have been in contact, shall be immediately detained and isolated, or may, if the Veterinary Inspector sees fit, be shipped, under the conditions hereinafter set forth, to a slaughter house within the area properly equipped as hereinafter provided, for immediate slaughter only. The Veterinary Inspector shall immediately report the matter to the nearest regular salaried Veterinary Inspector of the Department who shall thereupon take such further action as may appear to him to be necessary.

5. The loading of the above classes of cattle must be personally supervised by an Inspector who must see that the cars conveying them are duly billed to a slaughter house as above provided and that the said cars bear the placard required by Section 7 of this Order.

(*a*) The Inspector at the point of shipment shall also notify by telegraph the inspector at the point of destination of the fact that the cattle are being forwarded.

(*b*) Unless loaded through special yards and chutes reserved exclusively for such shipments, all yards and chutes, weigh scales or other appliances with which they have been in contact shall be declared infected places and shall not again be used until cleansed and disinfected to the satisfaction of an inspector; such cattle shall not be allowed to come in contact with other animals; shall be consigned direct only to slaughter houses within the hereinbefore described tract as are provided with private yards and chutes; shall not be unloaded at any point en route, and *shall under no pretext whatever, be removed alive from the slaughter house or the yards and premises immediately connected therewith.*

GENERAL PROVISIONS REGARDING SHIPMENT.

6. All waybills and bills of lading accompanying shipments of cattle originating within the said tract, other than those shipped under the provisions of Section 1 of this Order shall have plainly written or stamped across the face thereof a notification that the cars conveying such shipments are to be cleansed and disinfected after being unloaded, and before being again used.

7. All cars conveying such cattle must bear a placard having clearly printed thereon, in letters not less than six inches long, the words "*cattle for immediate slaughter only.*" Such cards shall in no case be removed unless and until the cars have been cleansed and disinfected after being unloaded at final destination.

(*a*) When cattle shipped to United States points are transferred to United States cars, such cars shall also bear a similar placard, but the placards shall not be removed from the Canadian cars unless and until the cars have been cleansed and disinfected under official supervision.

8. At points where cattle originating in the said tract, other than those provided for in Section 1 of this Order, are unloaded they shall be placed in special yards, and such yards shall be used for no other purpose and shall be cleansed and disinfected when so ordered by an Inspector.

9. Cars conveying such cattle shall be cleaned and disinfected to the satisfaction of an Inspector after being unloaded and before being again used.

10. Cattle shipped for immediate slaughter or for export shall not be sold or otherwise disposed of for any other purpose.

THE TRANSIT OF CATTLE THROUGH THE AREA.

11. The transit of cattle through the said tract is permitted, subject to the following regulations:—

(*a*) Cattle passing by rail through the said tract from one part of Canada to another, shall, at points where unloading is necessary, be placed in yards specially reserved for this purpose, and *shall not be permitted to come either directly or indirectly in contact with cattle which have originated within the said tract,* other than those provided for in Section 1 of this Order.

(*b*) Cattle imported from the United States into the said tract destined for points in Canada outside thereof may, under compliance with the Quarantine Regulations, and with the provisions of the next preceding paragraph hereof, be permitted to pass without unnecessary delay through the said tract direct to their destination without further restrictions.

12. Any infraction of these provisions shall be deemed an infraction of the Animal Contagious Diseases Act and dealt with accordingly.

13. The Minister is hereby empowered to make such alterations in the boundaries of the quarantined area defined by this Order as may from time to time seem to him necessary or advisable.

APPENDIX No. 17.

SPECIAL MANGE ORDER FOR BRITISH COLUMBIA.

By Order in Council dated 8th June, 1911, as amended by Ministerial Order July 5th, 1911.

Whereas the disease of Mange exists among cattle throughout that portion of the Province of British Columbia which may be described as bounded by a line drawn as follows:—

Beginning at the mouth of the North Thompson River, thence north along the said river to the line between townships 22 and 23, thence easterly along the line between townships 22 and 23, to the northwest corner of township 22, range 11, thence south along the line between ranges 11 and 12, to the southern boundary of the railway belt, thence westerly along the southern boundary of the railway belt to the line between ranges 17 and 18, thence northerly along the line between ranges 17 and 18, to the South Thompson River, thence east along the South Thompson River to the place of beginning.

Therefore His Excellency in Council, in virtue of the provisions of Chapter 75 Revised Statutes of Canada, 1906, is pleased to make and establish the following regulations relating to Mange in cattle in certain portions of the Province of British Columbia, and the same are hereby made and established accordingly.

Regulations.

1. Cattle intended for grazing, feeding, breeding purposes or milk production, *or any purpose other than immediate slaughter,* shall not be removed or be allowed to move out of the above described tract, nor shall any railway company accept or load any such cattle for shipment, unless they are accompanied by the certificate of a regular salaried Veterinary Inspector of the Department of Agriculture stating that they are free from disease and that they have been, within a period of thirty days immediately preceding the date of shipment, treated under the supervision of a regular salaried Veterinary Inspector and in a manner satisfactory to him, and that they have not, since being so treated, been exposed either directly or indirectly to the contagion of mange.

2. Cattle *intended for immediate slaughter* shall not be removed or allowed to move out of the above described tract, nor shall any railway company accept or load any such cattle for shipment, unless they are accompanied by the certificate of a Veterinary Inspector of the Department of Agriculture, stating that they have been examined by him and found free from Mange or any other contagious disease.

3. The Inspector at the point of shipment shall notify by telegraph the Inspector at the point of destination of the fact that the cattle are being forwarded.

4. Cattle found on inspection to be *affected with mange* shall not be removed or permitted to move out of the above described tract *under any pretext whatever,* except that by the authority and under the supervision of a Veterinary Inspector of the Department of Agriculture, such cattle may be moved to points within the area *for immediate slaughter.*

5. Such cattle shall not be allowed to come in contact with other animals; shall be consigned direct only to such slaughter houses within the hereinbefore described tract as are provided with private yards and chutes; shall not be unloaded at any point en route, and shall *under no pretext whatever, be removed alive from the slaughter house or the yards and premises immediately connected therewith.*

6. When cattle are shipped for immediate slaughter they shall not be sold or otherwise disposed of for any other purpose.

7. All way-bills and bills-of-lading accompanying shipments of cattle originating within the said tract, other than those shipped under the provisions of Section 1 of this Order, shall have plainly written or stamped across the face thereof a notification that the cars conveying such shipments are to be cleansed and disinfected after being unloaded, and before being again used.

8. All cars conveying such cattle must bear a placard having clearly printed thereon in letters not less than six inches long, the words *"cattle for immediate slaughter only."* Such cards shall in no case be removed unless and until the cars have been cleansed and disinfected after being unloaded at final destination.

9. Unless loaded through special yards and chutes, reserved exclusively for such shipments, all yards and chutes, weigh scales and other appliances with which they have been in contact shall be declared to be infected places, and shall not again be used until cleansed and disinfected to the satisfaction of an Inspector of the Department of Agriculture.

10. Cars conveying such cattle shall be cleansed and disinfected to the satisfaction of an Inspector after being unloaded and before being again used.

11. Cattle for transit by rail through the said tract from one part of Canada to another, shall, at points where unloading is necessary, be placed in yards specially reserved for this purpose, and shall not be permitted to come in contact with cattle which have originated within the said tract, other than those provided for in Section 1 of this Order.

12. Any infraction of these provisions shall be deemed an infraction of the Animal Contagious Disease Act and dealt with accordingly.

13. The Minister is hereby empowered to make such alterations in the boundaries of the quarantined area defined by this Order as may from time to time seem to him necessary or advisable.

APPENDIX No. 18.

REGULATIONS RELATING TO HOG CHOLERA AND SWINE PLAGUE.

By Order in Council dated 8th June, 1911, in virtue of "The Animal Contagious Diseases Act, R.S.C., 1906.

1. No hog which is or has been affected with, or which has been exposed to hog cholera or swine plague, shall be permitted to run at large, or to come in contact with any hog which is not so affected.

2. Any inspector may declare to be an infected place, within the meaning of the Animal Contagious Diseases Act, any place or premises where the infection of hog cholera or swine plague is known or suspected to exist.

3. No hog or other animal, nor any portion or product thereof, shall be removed out of a place so declared to be an infected place, without a license signed by an Inspector.

4. Inspectors are hereby authorized to inspect any hogs affected with hog cholera or swine plague, or suspected of being so affected, or which have been in contact with animals so affected or suspected of being so affected, or which have been in any way whatsoever exposed to the contagion of hog cholera or swine plague, and for the purpose of making such inspection may order any such animals to be collected, detained or isolated.

5. The expenses of, and incidental to the collection, isolation, seizure, or otherwise dealing with animals for the purpose of these regulations shall be borne by the owners of the animals, and no indemnity shall be allowed to the owner in case of damage arising out of or resulting from such actions, except as hereinafter provided.

6. Hogs affected with hog cholera or swine plague, or which have been in contact with or in close proximity to hogs affected with hog cholera or swine plague, shall on an order signed by an Inspector duly appointed under the Animal Contagious Diseases Act be forthwith slaughtered and the carcasses disposed of as in such order prescribed, compensation to be paid to the owners of such animals if and when the Act so provides.

7. After any place or premises has been declared to be an infected place on account of the existence or suspected existence thereon of hog cholera or swine plague, no hogs shall be brought on to such place or premises, except with the authority of an Inspector until the said place or premises shall have been declared to have been free from infectious or contagious disease, as provided in section 20 of the Animal Contagious Diseases Act, and in case of the infraction of this regulation any compensation to which the owner might otherwise be entitled shall be withheld.

8. Compensation may be withheld in the case of hogs fed on uncooked garbage or kitchen refuse, or on any raw animal flesh or similar food likely to convey the infection of hog cholera or swine plague.

9. Before an order is made for the payment of compensation in any of the cases aforesaid there must be produced to the Minister of Agriculture a satisfactory report,

order for slaughter, certificate of valuation and slaughter, and certificate of cleansing and disinfection, all signed by an Inspector.

10. Every yard, stable, hog-pen, or other place or premises, and every wagon, cart, carriage, car or other vehicle, and every utensil or other thing infected or suspected of being infected with hog cholera or swine plague shall be thoroughly cleansed and disinfected by and at the expense of the owner or occupier in a manner satisfactory to an Inspector.

APPENDIX No. 19.

SEED CONTROL ACT.

Regulations made by the Governor in Council, approved under date July 5, 1911.

His Excellency in Council is pleased, in virtue of the provisions of section 2 of the Seed Control Act, 1911, to make the following regulations, and the same are hereby made and established accordingly:—

1. The species of farm weeds which shall for the purpose of this Act be included within the meaning of the term "noxious weeds" shall be as follows:—

Wild Oats (*Avena fatua* L.)
Common Darnel (*Lolium temulentum* L.)
Docks (*Rumex* species.)
Purple Cockle (*Agrostemma Githago* L.)
Campions, including White Cockle (*Lychnis alba* Mill), Night-flowering Catchfly (*Silene noctiflora* L.) and Bladder Campion (*Silene latifolia* (Mill) Britten and Rendle.)
Cow Cockle (*Saponaria Vaccaria* L.)
Stinkweed (*Thlaspi arvense* L.)
False Flax (*Camelina* species).
Ball Mustard (*Neslia paniculata* (L.) Desv.)
Wild Radish (*Raphanus Raphanistrum* L.)
Wild Mustard (*Brassica arvensis* (L.) Ktze) and other wild Brasica species.
Hare's-ear Mustard (*Conringia orientalis* (L.) Dumort).
Tumbling Mustard (*Sisymbrium altissimum* L.)
Wild Carrot (*Daucus Carota* L.)
Field Bindweed (*Convolvulus arvensis* L.)
Dodder (*Cuscuta* species) in alfalfa seed.
Blue Bur or Stickseed (*Lappula Echinata* Gilibert).
Blue Weed (*Echium vulgare* L.)
Ribgrass (*Plantago lanceolata* L.)
Ox-eye Daisy (*Chrysanthemum Leucanthemum* L.)
Canada Thistle (*Cirsium arvense* (L.) Scop.)
Chicory (*Chicorium Intybus* L.)
Sow Thistles (*Sonchus* species.)

2. The maximum proportion of seeds of noxious weeds that may be tolerated in any other seeds without affecting their character as being free from the seeds of the said weeds within the meaning of section 6 of this Act shall be as follows:—

(*a*) For seed oats, barley, wheat or other seeds similar in size, one weed seed in one pound avoirdupois.

(*b*) For seed of flax, millet or other seeds similar in size, one weed seed in one ounce avoirdupois.

(*c*)For seed of white clover and grasses, five weed seeds in one ounce avoirdupois.

3. Nothing in these regulations shall be construed to apply to timothy, red clover, alfalfa or alsike seed that may be marked with a designation of the grade of seed "Extra No. 1," as defined in section 8, clause (*a*) of the Act.

4. The percentage standards of vitality for good seed of the various kinds of cereals, grasses, clovers, forage plants, flax, field root and garden vegetable crops, shall be as follows:—

	Percentage Germination.
For cereal grains, flax, Indian corn and millet	95
" peas, beans and vetches	90
" red clover, alfalfa, alsike, white and other clovers	95
" timothy, cocksfoot and meadow fescue	90
" all other grasses	80
" mangel and beet (160 sprouts from 100 balls) balls	90
" turnip, swede, rape, radish, cabbage and cauliflower	90
" spinach and carrot	80
" celery, parsley and parsnip	65
" onion, leek and tomato	90
" lettuce	95
" cucumber, melon, squash and other cucurbits	90

APPENDIX No. 20.

REGULATIONS RELATING TO SHEEP SCAB.

By Order in Council dated 22nd July, 1911, in virtue of "The Animal Contagious Diseases Act, R.S.C., 1906."

1. No sheep which is affected with, or has been exposed to the infection of Sheep Scab shall be permitted to run at large or to come in contact with any animal not so affected or exposed.

2. Any Inspector may declare to be an infected place within the meaning of "The Animal Contagious Diseases Act" any place or premises where the infection of Sheep Scab is known or suspected to exist.

3. No sheep nor any wool or other portion or product thereof shall be removed out of any place so declared to be an infected place without a license signed by an Inspector.

4. Inspectors are hereby authorized to inspect any sheep affected with Sheep Scab, or suspected of being so affected, or which have been in contact with animals so affected, or suspected of being so affected, or which have been in any way whatever exposed to the infection of Sheep Scab, and may order any such animals to be collected, detained, isolated, dipped or otherwise dealt with as may to them appear advisable.

5. The expenses of, and incidental to the collection, isolation, seizure, or otherwise dealing with animals for the purposes of these Regulations shall be borne by the owners of the animals and no indemnity shall be allowed to the owner in case of damage arising out of or resulting from such actions except as hereinafter provided.

6. Where a Veterinary Inspector so orders, no sheep shall be allowed access to any field, common, yard, stable, or other place or premises where Sheep Scab exists or has existed.

7. Premises on which animals affected with Sheep Scab have been kept, are to be dealt with at the expense of the owner or occupier in a manner satisfactory to the Veterinary Inspector.

8. Animals affected with Sheep Scab or which have been in contact with or in close proximity to animals affected with Sheep Scab, may, on an order signed by a Veterinary Inspector, duly appointed under the Animal Contagious Diseases Act, be forthwith—slaughtered and the carcasses disposed of as in such manner prescribed, compensation to be paid to the owners of such animals if and when the Act so provides but no Inspector shall order the slaughter of such animals without having first received from the Minister special authority to do so.

9. Before an order is made for the payment of compensation in any of the cases aforesaid, there must be produced to the Minister of Agriculture a satisfactory report, order for slaughter, certificate of valuation and slaughter, and certificate of cleansing and disinfection, all signed by an Inspector.

10. Any Inspector may declare any steamship, steam or other vessel, railway car or other vehicle, on or in which animals affected with or suspected of being affected with Sheep Scab, are, or have been placed for the purpose of transit, to be infected and may also declare such vessel, car or other vehicle, to be no longer infected after it has been thoroughly cleansed and disinfected in accordance with his instructions.

11. Every yard, stable, cowshed, outhouse, or other place or premises, and every wagon, cart, carriage, car, or other vehicle, and every utensil or other thing infected or suspected of being infected with Sheep Scab shall be thoroughly cleansed and disinfected by and at the expense of the owner or occupier in a manner satisfactory to an Inspector.

APPENDIX No. 21.

REGULATIONS RELATING TO ANTHRAX.

By Order in Council dated 22nd July, 1911, in virtue of "The Animal Contagious Diseases Act, R.S.C., 1906."

1. No animal which is affected with or has been exposed to the contagion of Anthrax shall be permitted to run at large or to come in contact with any animal not so affected or exposed.

2. Any Inspector may declare to be an infected place within the meaning of "The Animal Contagious Diseases Act" any place or premises where the contagion of Anthrax is known or suspected to exist.

3. No animal nor any portion or product thereof shall be removed out of any place so declared to be an infected place without a license signed by an Inspector.

4. Inspectors are hereby authorized to inspect any animals affected with Anthrax or suspected of being so affected, or which have been in contact with animals so affected, or suspected of being so affected, or which have been in any way whatever exposed to the infection of Anthrax, and may order any such animals to be collected, detained, isolated, or otherwise dealt with as may to them appear advisable.

5. The expenses of, and incidental to the collection, isolation, seizure, or otherwise dealing with animals for the purposes of these Regulations shall be borne by the owners of the animals and no indemnity shall be allowed to the owner in case

of damage arising out of or resulting from such actions except as hereinafter provided.

6. Where a Veterinary Inspector so orders no animal or animals shall be allowed access to any field, common, yard, stable, or other place or premises where Anthrax exists or has existed.

7. Carcasses of animals dying from Anthrax, or suspected Anthrax, must not be skinned, or cut in any way; such carcasses together with all litter, excreta and other articles which may have been in contact with them, must be dealt with in accordance with the orders of the Veterinary Inspector and in a manner satisfactory to him.

8. Premises on which animals affected with Anthrax have been kept are to be dealt with at the expense of the owner or occupier, in a manner satisfactory to the Veterinary Inspector.

9. Animals affected with Anthrax or which have been in contact with or in close proximity to animals affected with Anthrax, may, on an order signed by a Veterinary Inspector, duly appointed under the Animal Contagious Diseases Act, be forthwith slaughtered and the carcasses disposed of as in such order prescribed, compensation to be paid to the owners of such animals if and when the Act so provides, but no Inspector shall order the slaughter of such animals without having first received from the Minister special authority to do so.

10. Before an order is made for the payment of compensation in any of the cases aforesaid, there must be produced to the Minister of Agriculture a satisfactory report, order for slaughter, certificate of valuation and slaughter, and certificate of cleansing and disinfection, all signed by an Inspector.

11. Any Inspector may declare any steamship, steam or other vessel, railway car or other vehicle, on or in which animals affected with or suspected of being affected with Anthrax, are or have been placed for the purpose of transit, to be infected, and may also declare such vessel, car or other vehicle, to be no longer infected after it has been thoroughly cleansed and disinfected in accordance with his instructions.

12. Every yard, stable, cowshed, outhouse, or other place or premises, and every wagon, cart, carriage, car, or other vehicle, and every utensil or other thing infected or suspected of being infected with Anthrax shall be thoroughly cleansed and disinfected by and at the expense of the owner or occupier in a manner satisfactory to an Inspector.

APPENDIX No. 22

REGULATIONS RELATING TO MANGE.

By Order in Council dated 22nd July, 1911, in virtue of "The Animal Contagious Diseases Act, R.S.C., 1906."

1. No animal which is affected with or has been exposed to the infection of Mange shall be permitted to run at large or to come in contact with any animal not so affected or exposed.

2. Any Inspector may declare to be an infected place within the meaning of the "Animal Contagious Diseases Act," any place or premises where the infection of Mange is known or suspected to exist.

3. No animal nor any portion or product thereof shall be removed out of any place so declared to be an infected place without a license signed by an Inspector.

4. Inspectors are hereby authorized to inspect any animals affected with Mange, or suspected of being so affected, or which have been in contact with animals so affected, or suspected of being so affected, or which have been in any way whatever exposed to the infection of Mange, and may order any such animals to be collected, detained, isolated, dipped, or otherwise dealt with, as may to them appear advisable.

5. The expenses of, and incidental to the collection, isolation, seizure, or otherwise dealing with animals for the purposes of these Regulations shall be borne by the

owners of the animals and no indemnity shall be allowed to the owner in case of damage arising out of or resulting from such actions except as hereinafter provided.

6. Where a Veterinary Inspector so orders, no animal or animals shall be allowed access to any field, common, yard, stable, or other place or premises where Mange exists or has existed.

7. Premises on which animals affected with Mange have been kept are to be dealt with at the expense of the owner, in a manner satisactory to the Veterinary Inspector.

8. Animals affected with Mange or which have been in contact with, or in close proximity to animals affected with Mange, may, on an order signed by a Veterinary Inspector, duly appointed under the "Animal Contagious Diseases Act," be forthwith slaughtered and the carcasses disposed of as in such order prescribed, compensation to be paid to the owners of such animals if and when the Act so provides, but no Inspector shall order the slaughter of such animals without having first received, from the Minister, special authority to do so.

9. Before an order is made for the payment of compensation in any of the cases aforesaid, there must be produced to the Minister of Agriculture a satisfactory report, order for slaughter, certificate of valuation and slaughter, and certificate of cleansing and disinfection, all signed by an Inspector.

10. Any Inspector may declare any steamship, steam, or other vessel, railway car or other vehicle, on or in which animals affected with or suspected of being affected with Mange are or have been placed for the purpose of transit, to be infected, and may also declare such vessel, car or other vehicle, to be no longer affected after it has been thoroughly cleansed and disinfected in accordance with his instructions.

11. Every yard, stable, cowshed, outhouse, or other place or premises, and every wagon, cart, carriage, car, or other vehicle, and every utensil or other thing infected or suspected of being infected with Mange shall be thoroughly cleansed and disinfected by, and at the expense of the owner or occupier in a manner satisfactory to an Inspector.

APPENDIX No. 23.

REGULATIONS RELATING TO MALADIE DU COIT.

By Order in Council dated 22nd July, 1911, in virtue of "The Animal Contagious Diseases Act, R.S.C., 1906."

1. No animal which is affected, or suspected of being affected with Maladie du Coit shall be permitted to run at large or to come in contact with any animal which is not so affected, and no such animal shall, in any case, be used for breeding purposes.

2. Any Inspector may declare to be an infected place within the meaning of "The Animal Contagious Diseases Act," any common, field, stable or other place or premises where animals are found which are infected or suspected of being affected with Maladie du Coit.

3. No horse, ass or mule shall be removed out of any place so declared to be an infected place without a license signed by an Inspector.

4. The Veterinary Director General may, from time to time, order the slaughter castration, or other disposition of animals affected with Maladie du Coit.

5. Inspectors are hereby authorized to inspect any animals affected with Maladie du Coit, or suspected of being so affected, or which have been in contact with animals

so affected, or suspected of being so affected, or which have been in any way whatsoever exposed to the infection of Maladie du Coit, and may order any such animals to be collected, detained, isolated, castrated, or otherwise dealt with as may to them appear advisable.

6. The expenses of and incidental to the collection of, isolation, seizure, castration, or otherwise dealing with animals for the purposes of these Regulations shall be borne by the owners of the animals, and no indemnity shall be allowed to the owner in case of damage arising out of or resulting from such actions, except as hereinafter provided.

No entire horse, ass or mule nor any ridgling more than one year old shall be permitted to run at large on unfenced lands in the Province of Alberta or in that portion of the Province of Saskatchewan lying west of the third principal meridian.

8. Any entire horse, ass or mule or any ridgling more than one year old found running at large within the area defined above may be seized and held, on the order of any duly authorized Veterinary Inspector of the Department of Agriculture, who shall forthwith whenever possible, notify the owner of the said animal of such seizure, and the said animal, if not claimed within thirty days of such seizure, may be castrated, and no indemnity shall be allowed to the owner in case of damage arising out of or resulting from said castration, seizure or detention.

9. Animals affected with Maladie du Coit may, on an order signed by a duly appointed Veterinary Inspector, acting under special instructions from the Veterinary Director General, be forthwith slaughtered, and the carcasses disposed of as in such order provided, and compensation may be paid to the owners of such animals if and when the Act so provides.

10. Before an order is made for the payment of compensation in any of the cases aforesaid, there must be produced to the Minister of Agriculture a satisfactory report, order for slaughter, certificate of valuation and slaughter, and certificate of cleansing and disinfection, all signed by an Inspector.

APPENDIX No. 24.

SPECIAL ORDER REGARDING THE MOVEMENT OF HORSES IN ALBERTA AND SASKATCHEWAN.

By Order in Council of 19th August, 1911.

Whereas certain contagious diseases exist among horses in those portions of the provinces of Saskatchewan and Alberta which may be described as bounded by the International Boundary, the Rocky Mountains and a line drawn as follows:—

A line from the Rocky Mountains along the northern boundary of the Stoney Indian Reserve to the line between ranges 5 and 6 west of the 5th meridian, thence north along that line to the line between townships 40 and 41, thence east along that line to the 4th principal meridian, thence south along the 4th principal meridian to the Red Deer River, thence along the Red Deer and Saskatchewan rivers to the line between ranges 7 and 8 west of the 3rd meridian, thence south along that line to the International boundary.

And whereas it is advisable and in the public interest, with a view to eradicating the disease, that regulations be established for this purpose.

Therefore His Excellency in Council is pleased to make and establish the following regulations and the same are hereby made and established accordingly.

Regulations.

1. No horse, except as hereinafter provided, shall be removed or allowed to move out of the said tract unless and until it has been examined by a Veterinary Inspector of the Department of Agriculture and certified to be free from contagious disease.

2. All horses which are intended to be removed or to be allowed to move out of the hereinbefore described tract, except as hereinafter provided, shall be inspected, and if found diseased, or to have been in contact with diseased horses, shall be dealt with in accordance with the provisions of the Animal Contagious Diseases Act and of the regulations made thereunder.

3. No railway company shall accept or load for shipment from or to any point, either within or without the said tract, any horses which have originated therein unless such horses are accompanied by the certificate of an Inspector of the Department of Agriculture, as above provided.

4. All cars and other vehicles used for the carriage of horses originating within the said tract shall be cleansed and disinfected to the satisfaction of an Inspector as soon as possible after being unloaded and before being used for any other shipment.

5. All way bills and bills of lading accompanying shipments of horses originating within the said tract shall have plainly written or stamped across the face thereof, a notification that the said cars are to be cleansed and disinfected immediately after being unloaded.

6. The transit of horses through the said tract is hereby permitted subject to the following regulations:—

(*a*) Horses for transit by rail through the said tract from one part of Canada to another, shall, at points where unloading is necessary, be placed in yards reserved for their exclusive use, and *shall not be permitted to come in contact with horses which have originated within the said tract.*

(*b*) Horses imported from the United States into the said tract destined for points in Canada outside thereof, may, upon compliance with the quarantine regulations and with the provisions of the next preceding section hereof, be permitted to pass, without unnecessary delay, through the said tract direct to their destination, without further restrictions.

7. Any infraction of these provisions shall be deemed an infraction of the Animal Contagious Diseases Act and dealt with accordingly.

8. The Minister is hereby empowered to make such alterations in the boundaries of the quarantined area defined by this Order as may from time to time seem to him necessary or advisable.

APPENDIX No. 25.

THE INTERNATIONAL AGRICULTURAL CONGRESS AT MADRID.

OTTAWA, March 31, 1912.

SIR,—As delegate for Canada, I have the honour to present a report on the ninth International Agricultural Congress, which was held at Madrid from May 1, to 8, 1911, under the distinguished patronage of His Majesty the King of Spain.

These Congresses are attended by official representatives of many of the principal countries of the world, and afford valuable opportunities for the discussion of the economic and scientific questions relating to all branches of agriculture, and for the interchange of views based on experience as to the best means of promoting the de-

velopment of the agricultural industry. Great Britain was represented on this occasion by Sir Thos. Elliott, K.C.B., Secretary to the Board of Agriculture and Fisheries, and by Mr. T. H. Middleton, Chief of the Agricultural Intelligence Division of the Board of Agriculture and Fisheries.

The Congress was attended, apart from the official delegates, by a very large body of farmers and others to the number of upwards of a thousand, of whom Spaniards formed probably two-thirds. The enthusiasm with which the Congress was received, and the interest which it created in Spain, were largely due to the labours of the Comte de Montornes, who, as President of the Committee of Organization and Rapporteur General to the Congress, was untiring in his efforts to make it a success. It was to his initiative that the Congress owed not only the support of the Spanish government, but also the attendance of the agricultural societies of Spain, which contributed so greatly to the success of the meeting. Agriculturists, not only in Spain, but everywhere else, are greatly indebted to him for the ability and public spirit which he brought to bear on the discharge of the duties which he had undertaken on their behalf.

The Congress was opened on May 1 by His Excellency Don Rafael Gasset, the Minister in charge of the Spanish Department of Agriculture, a former President of the Council and Minister of Agriculture in France. M. Meline, after referring to the progress of agriculture during the past quarter of a century, dealt with the problem of rural depopulation, with which his name is chiefly associated, and also with the shortage of agricultural labour which is noticeable in many parts of continental Europe.

On May 7 the Congress was brought to a close by a meeting at which His Majesty the King of Spain was present. After the presentation of reports on the resolutions of the sections, and other business, His Majesty was pleased to express, in moving terms, his recognition of the labours of the Congress.

The work of the Congress was distributed among eight sections, dealing with the following groups of subjects: (1) economics, (2) statistics, (3) surveys, (4) forestry, (5) viticulture, (6) fruit culture, (7) breeding of live stock, (8) manures. Material for the work of the sections was provided by preliminary papers, the conclusions arrived at in which were discussed, and formed a basis for the resolutions that were to be the final outcome of the Congress.

Of these resolutions some consist of recommendations, for submission to the governments concerned, with regard to possible reforms; others are suggestions to land owners with respect to improvements that can be introduced in the cultivation of the soil. The permanent commission of the Congress is charged with the duty of transmitting to the International Institute of Agriculture, at Rome, the resolutions having an international object, with the furtherance of which it is concerned.

Economics.—The first section was devoted to rural economy. This included a number of subjects of considerable importance, and the programme was particularly full, more than twenty-five papers being submitted for consideration.

The first question dealt with the means of keeping agriculturists on the land, including in the term landowners, farmers and labourers. The problem has many aspects, and it arises in different forms in different countries. Among the six papers on this question that were presented, one of the most important was that of the Comte de Montornes, on a plan for the management of a large estate, which has been put into operation in the Province of Valencia. M. H. Hitier, contributed an interesting paper, which was much appreciated, on the provision of suitable housing accommodation as a means of keeping agricultural labourers on the soil. Finally, the section recommended a series of legislative measures designed to facilitate the creation of small holdings, to foster co-operation and all movements directed towards the promotion of the general welfare. It insisted, also, on the advantage that would

result from a reduction in the excessive subdivision of holdings. It also pointed out the advantage to municipalities, in conjunction with large landowners, of forming 'back to the land' committees, for the purpose of facilitating, where desirable, the return of agricultural families, to the soil.

The second subject related to agricultural education, and papers were contributed by M. H. Grosjean, on the agricultural instruction to be given to the rural classes in France; by M. Westermann, on agricultural education in Denmark; and by M. Paul de Vuyst, on associations for women agriculturists in Belgium.

Co-operation and agricultural credit formed the third subject dealt with. The conclusions arrived at were mainly of a general character. The section insisted strongly on the necessity for freedom in the creation and development of agricultural co-operative societies, especially those for the purpose of supply, production and sale. Suggestions were made in regard to the organization of credit societies that will be useful in countries where such societies are not numerous.

Questions relating to water supply are of the first importance in Spain, and numerous papers on the subject were contributed. Those dealt especially with state intervention in irrigation. In that country the demand is unanimous that the state should supply at the proper times the water that is indispensable for agricultural operation. To this end the establishment of a hydrological department is advocated, for the purpose of surveying and improving the water supply. The principle of subventions in aid of the construction of irrigation canals was approved on the ground of the eminently productive character of such undertakings, and assistance was asked, not only for new undertakings, but also for the extension of those already existing. In addition to the utilization of surface streams, the investigation of underground sources of water was included.

The section also considered the question of weirs and the use of water power for electric power stations, undertakings that have a direct effect on the water supply for agricultural purposes. On this subject M. Leon Dabat presented a paper on the distribution of electric power, the conclusions of which were adopted by the section. They may be summarized as follows: In granting concessions for the use of water for the purpose of electric power works, the concessionaires should only be allowed to charge a certain price for the sale of power for raising water for the purposes of general utility, particularly for irrigation, sanitary purposes, drinking water, &c.

Statistics.—The second section, to which the representative for Canada was particularly assigned, dealt with the collection and use of statistics. The discussion resulted in a series of resolutions in the following terms:—

1. That an official statistical department should be organized in every country for the purpose of providing farmers with all the information they require to enable them to arrange their production, and that sufficient financial resources should be placed at the disposal of this department. It should be arranged that the statistics should be published as often and as rapidly as possible.

2. That legislative or administrative means should be taken in each country to verify and publish as frequently as possible, not only the price actually current for the products of agriculture and agricultural industries, but also the quantities offered and sold at each rate quoted in the official lists.

3. That the International Institute of Agriculture at Rome should be recommended to continue the plan which it has adopted of putting at the disposal of the world the agricultural material transmitted to it by the various governments, and to develop, on as etxensive a scale as possible, the series of statistical inquiries at present in course of publication.

4. That in order to facilitate the comparative study of the statistics of different countries, relating to the trade in the products of agriculture and agricultural industries, standards of quality should be established in each country, which would serve

as a basis for comparison. The Congress suggested that the International Agricultural Institute at Rome should examine this question, with the object of defining useful types.

5. That for the most important crops, cereals, for example, the reports published should begin at the earliest stage of growth, and should be published every month, up to the time immediately preceding the harvest.

Surveys.—The third section, dealing with surveys, adopted only a series of general recommendations, dealing with the methods of official surveys, their advantage and disadvantages, &c.

Forestry.—Numerous papers were presented to the forestry section, which was one of the most active sections of the Congress. The nature of the discussion is shown by the following general conclusions which were adopted:

The progress of agriculture and stock-breeding requires, as an indispensable preliminary measure, the reafforesting, and subsequent conservation and management, of all the mountainous districts in the forest zone.

At present the mountainous districts fail to exercise their normal and natural action on the climate, the water system, and the economy of the country.

The forestry administration should divide the mountainous districts forming the forest zone into two main groups, viz.: protective and productive areas. The freehold of all land included in the area of protective mountainous districts should be acquired by the state, and immediate steps taken for a soil survey, and the reafforestation and management of such land.

The state should exercise technical and administrative control over all mountainous areas that are the property of the villages or public bodies. They should be preserved, as being productive, though not protective, by the fact of being included within the forest zone. Over the remaining mountainous districts included in the forest zone and held as private property, the state should only exercise a technical inspection, sufficient to ensure their proper maintenance and improvement.

The state should proceed to the delimination of the forest zone, and to the classification of the mountainous regions included in it into protective and productive areas, and declare them of public utility.

It was suggested that one of the most important aims of the Congress should be the conclusion of international conventions as a means of arriving at the formation of an international code in the reafforestation of mountains. A union should be established of the states bordering on the Mediterranean for the solution of the forestry problems of the region.

The various states, by example and precept, by moral and material support, and by fiscal immunities and legislative provisions designed to attract private or collective capital, should promote the maintenance and improvement of existing forests, the management, as regards forestry and grazing, of mountains, and the reafforestation of waste lands.

The state should, by various means, increase the wooded area, and maintain and improve the Alpine pastures. To this end it should strive to increase the public forest area, and to stimulate the formation of associations for the purpose, by attracting capital towards reafforestation, at the same time preventing undue exploitation.

It will be necessary, in connection with rivers having an international character, that the work should be carried out on a method drawn up by agreement among the countries interested, each engaging to follow the plan as far as its financial resources and circumstances will allow.

Steps should be taken to popularize the view that agriculture will derive great benefit by the partial substitution of forestry for cultivation where the conditions are unfavourable for the latter, by increasing, in dry regions, the number of wooded pas-

tures, and by dividing arable fields by lines of trees at right angles to the direction of the prevailing wind.

Arbour days should be made general, and should be given an educational character. Societies for the promotion of tree-planting and forestry should be encouraged.

Viticulture and Fruit Growing.—The fifth section of the Congress was devoted to viticulture and wine-making, and, in view of its importance in the southern countries of Europe, the subject naturally attracted much attention. The sixth section was devoted to fruit trees, and also chiefly concerned itself with fruits grown in southern Europe, such as the orange, lemon, and olive.

Insects and fungi attacking these trees were the subject of two reports, and, taking as a basis the results which have been attained in the U.S.A. by the introduction of certain useful insects, parasitic or harmful insects, the Congress expressed the desire that entomologists in the different countries should request their respective governments to undertake the study and classification of these useful insects and to facilitate the exchange of colonies of these insects with countries where insects which they destroy are prevalent.

Live Stock.—In the seventh section, the feeding of cattle was the most important consideration. The Congress expressed the desire that the procedure with regard to the analysis of feeding stuffs for animals in different countries should be made uniform, and that tables of feeding values for different districts be drawn up, showing the great differences between the nutritive value of products according to their place of origin. Such tables should be brought together in pamphlet form, for distribution to breeders, and should include typical model rations for different animals by districts.

Another resolution asked for uniformity in sanitary regulations relating to animals, and the spread among agriculturists of a practical knowledge of the hygiene of animals.

The section also dealt with methods of treatment of grassland, and asked for the creation of organizations whose special duty it would be to act as intermediaries for the purchase of seeds, of which the quality should be guaranteed.

Manures.—The object of the eighth section was to collect information on the application of new manures produced by the absorption of nitrogen from the air.

As a result of the papers presented to the Congress, the conclusion was arrived at that nitrate of lime and calcium cyanide are nitrogenous manures well deserving the attention of the whole agricultural world, though more experiments with these manures must be undertaken to ascertain exactly how they should be used.

The other conclusions relate to comparisons between the action of these two manures. The section concluded that nitrate of lime acts similarly to nitrate of soda, while calcium cyanide appears to behave like sulphur of ammonia.

I have the honour to be, sir,
Your obedient servant,

T. K. DOHERTY,

Delegate for Canada.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 26.

INTERNATIONAL INSTITUTE OF AGRICULTURE.

ROME, May 21, 1911.

SIR,—The third General Assembly of the International Institute of Agriculture opened in Rome on the 14th May. The ninety-three delegates representing the 48 nations who compose the Institute, at their first meeting elected Mr. Raineri, former Minister of Agriculture of Italy, as president, and the Hon. David Foster, first delegate of the United States, and His Excellency Baron de Bildt, Swedish Ambassador to the King of Italy and permanent delegate from Sweden to the Institute, as First and Second Vice-Presidents.

The King of Italy, founder of the Institute, and whose interest in its work and success has always been very great, accompanied by the Queen, honoured the afternoon reception by their presence, and I had the honour of introducing to Their Majesties Mr. T. K. Doherty, official correspondent of Canada to the Institute and my fellow delegate to the General Assembly.

Many changes have taken place in the Institute since the last General Assembly in 1909. Count Faina, President of the Institute, since its foundation in 1905, resigned in the beginning of 1910, and with him most of the permanent staff retired.

Marquis Cappetli, the new President, in his opening address, feelingly alluded to Count Faina's retirement and the loss the Institute has suffered, for it was his devotion, hard and continuous work, which has brought it to its present position, and as he counted none but friends among the delegates, his absence from our meeting caused many regrets, so did the disappearance of the permanent staff, with whom Canada counted none but friends.

The finances of the Institute are in a very prosperous condition and quite a handsome surplus was carried forward at the end of the fiscal year, 1910. As the next General Assembly will not take place till the spring of 1913, a total of two millions two hundred and ninety-eight thousand francs (2,298,000) was voted for the two years 1911 and 1912.

The monthly crop reports of the Institute, owing to the official information on which they are based, are becoming more and more important, and at no distant date will be quite a factor in the commercial world, as they become better known. The other publications, viz.: 'Bulletin d'Information Agricole' and the one 'Sur les Societes d'Economics Sociales' are both so very interesting as to be indispensable, when one considers that one contains in a condensed form the information culled from no less than 1,500 agricultural magazines and reviews.,

The General Assembly which closed its labours on the 20th of May, was most interesting as the questions on the programme of the meeting, and sent to your Department last February, show. Each and every question was thoroughly discussed and the decisions taken most judicious and wise, particularly the ones dealing with the protection of birds useful to agriculture, and the system of dry farming and insurance against hail. The question of a uniform and improved system of collecting and sending the monthly statistics to the Institute was again brought forward and forms quite an important item in the wishes expressed by the General Assembly, so was also the question of paying in the first four months of the year the annual contribution of the different governments to the Institute.

Mr. Wyndham, of the British Embassy in Rome, who so capably represented Canada at the sittings of the Permanent Committee, having been appointed His

Majesty's Minister to Colombia, Mr. Dering, his successor in Rome, has also kindly consented to represent Canada on the Permanent Committee, and the thanks of the Canadian Government are due to both these gentlemen for looking after our interests in the Institute so generously and so well.

The whole respectfully submitted,

ARTHUR BOYER.

The Honourable Minister of Agriculture,
Ottawa.

APPENDIX No. 27.

INTERNATIONAL UNION FOR THE PROTECTION OF INDUSTRIAL PROPERTY.

(TRANSLATION.)

The delegation from Canada believes it to be its duty to thank the government of the United States for having invited its country to be represented at the International Conference for the Protection of Industrial Property at Washington and at the same time the delegation has pleasure in thanking the Conference for having accorded it the right to take part in the deliberations, although Canada has not been able to accede to the convention.

The presence of delegates from Canada may be construed as an intimation on the part of the Government of Canada of its sympathy with the aims and objects of the Conference which must have the effect of increasing the feelings of international amity and of advancing the progress of civilization through the extension of friendly competition in the arts of peace.

The Canadian delegation regrets to communicate to the Conference that the particular conditions in which Canada finds itself prevent its government from accepting certain of the articles of the proposed convention.

Public opinion in Canada would, in the view of the Government of Canada, be opposed to any relaxation of the provision of the Canadian law avoiding a patent for importation of the patented article after the expiration of twelve months from the granting of the patent, or an authorized extension of such period nor would it be favourable to the substitution of the provision of the article which it is proposed to add to the convention requiring manufacture in only one country of the Union for its present law requiring manufacture within the Dominion. If, however, the deliberations of the Conference should result in the according, to countries desiring to enter the Union, the privilege of making a reservation with regard to certain articles, Canada would then be in a position to ask that its accession to the convention be sginified, the remaining points in regard to which the law of Canada is inconsistent with the articles of the convention, as submitted, being immaterial.

The delegation of Canada has great diffidence in advancing the foregoing proposition and is induced to adopt this course of action owing to the fact that the law of Canada with the exception above indicated, to-day accords to all nations all the rights and privileges secured by the convention, exacting nothing in return. Furthermore, the delegation bases itself on the precedent established by the revised Convention to Berne, for the protection of literary and artistic works, under the provisions of which, as understood by the delegation, the adhering countries have the privileges of making reservations, with regard to the stipulations which they cannot apply.

In any event the delegates of Canada will esteem it a privilege to be permitted to share in the deliberations of the Conference in order to obtain information which

will be valuable to the Government of Canada on the subject of the deliberations of the Conference.

In conclusion the delegation of Canada places itself at the disposal of the Conference with a view to communicating such information regarding the law and practice, with respect to industrial property, as may be of service to the members of the Conference.

APPENDIX No 28.

MEMORANDUM.

Of Proceedings of the Thirteenth International Congress Against Alcohol held at The Hague, Holland, September 11th to 16th, 1911.

The International Congress on Alcoholism, which opened at Scheveningen in The Hague, Holland, on Monday, September 11, 1911, was the thirteenth of a series which began in the city of Antwerp, Belgium, in the year 1885. Preparations for this meeting were made by a permanent committee appointed at the last preceding congress in London, in 1909, of which His Royal Highness, Field Marshal, the Duke of Connaught and Strathern, was honorary president, and the Right Honourable Lord Weardale was acting president.

This Thirteenth Congress was convened under the auspices of Her Gracious Majesty Queen Wilhelmina of Holland, and the Dutch Government. Its sessions were held in the Kurhaus at Scheveningen, and it was largely attended, there being present official delegates appointed by the governments of different nations, along with more than one thousand delegates chosen by various religious, temperance, and other philanthropic organizations which were invited to send representatives. Among the latter were many persons of scientific and literary eminence. A large number were Catholic and Protestant clergymen. The Holy See was represented by Mgr. A. J. Callier, the Bishop of Harlem. Official delegates were present from the following countries:

Great Britain, and the overseas British Dominions of Canada, Australia, South Australia, and South Africa; the United States of America; Austria, Belgium, Denmark, France, Germany, Greece, Hungary, The Netherlands, Norway, Portugal, Roumania, Servia, Sweden, Switzerland, Uruguay.

The official delegates representing Great Britain were John Pedder, principal clerk in the Home Office, and Dr. R. B. Branthwaite, Inspector under the Inebriates Act. The official delegates representing the Dominion of Canada were Mr. Justice Eugene Lafontaine, of Montreal, Quebec, and Controller Francis S. Spence, of Toronto, Ontario.

OPENING SESSION.

The Congress was formally opened on Monday evening by divine service in the Evangelical New Church, and the Roman Catholic Church of St. Antonius Abbott. Among the participants in the leadership of the services were the Rev. J. R. Slotemaker De Bruine, D.D., from Utrecht; the Very Rev. the Hon. J. W. Leigh, D.D., Dean of Hereford; the Rev. R. Burckhardt, D.D., from Berlin; the Rev. Victor Brough, from Geneva.

These services were followed by an official reception tendered by the Burgomaster and Aldermen of The Hague to the delegates.

SECOND DAY.

The formal proceedings of the Congress proper began on the morning of Tuesday, September 12, with addresses by the Hon. J. W. Leigh, D.D., President of the Permanent Committee; by His Excellency Dr. Heemskerk, President of the Council of the Dutch Government, by a number of government delegates and by other representatives of different organizations in various countries. The officers of the Congress were then elected, His Excellency the Honourable A. S. Talma, Minister of Agriculture for the Netherlands, being chosen as president.

On Tuesday afternoon the question of the treatment of habitual inebriates was taken up, the first speaker being Dr. Ph. Stein of Budapest. He spoke upon the question of the proper psychological treatment of inebriates in asylums or special institutions. The treatment of similar cases in which the victim is not under restraint, was discussed by Miss Wilhelmina Lohmann, of Bielefeld, and Jules Joseph, of Geneva. K. H. Bouman, M.D., of Amsterdam, then presented an interesting statement concerning what he called a Consultation Office for Inebriates. Landsrat Schellman, M.D., of Dusseldorf, Sanitatstrat Seiffert, M.D., of Bouthen, and Dr. Feldmann of Eckardtscheim, gave their ideas of the methods that ought to govern homes for inebriates.

THIRD DAY.

The third day's work was of special interest. It began with a very instructive review of principles and progress on legislative lines by Dr. R. Hercod, of Lausanne. This was followed by papers read by Dr. Von Straussand-Torney, of Berlin, on German license laws, and by Dr. Scharffenberg, of Christiania, and Dr. Matti Helenius, of Helsingfors, on local option. Then came the discussion in which the expressions of endorsement of the prohibition plan were numerous and strong.

Different speakers told of progress made on legislative lines in different countries. Rev. Dr. Dinwoodie's record of legislation for the promotion of temperance in the United States was very cordially received, and a statement of conditions in the Dominion of Canada, made by Controller Spence, was warmly applauded. Other speakers at this session were Arthur Sherwell, M.P., of England, Dr. A. Akhers, of Germany and Rev. Dr. J. Patterson, of Belfast.

In the afternoon the theme was 'Alcohol and Degeneration,' the leading speakers being Prof. Forel, M.D., of Yvorne, Switzerland. Others who read papers were Dr. Wlaska, of Vienna, and Theo. B. Hyslop, of London. The same subject was discussed at the meetings of the Confederation of Abstinent Physicians, outside the regular Congress sessions, in valuable papers by Prof. Taav Laitinen, of Helsingfors; Dr. A. Holitscher of Pirkenhammer, and Dr. B. H. Vos, of Hellendoorn.

In the evening there was a public meeting addressed by Dr. W. P. Ruijsch, chairman of the local reception committee; Mr. Louis Mulaert, of Bruges; Prof. J. Van Rus, of Amsterdam; and Rev. Mr. Patterson, of Belfast.

FOURTH DAY.

'How to Obtain the Sympathy of Governments and Parliaments' was the topic discussed by the fourth day's sessions. The 'Congressists,' as they were officially called, who made the chief addresses were: Dr. Moller of Berlin, Dr. Henry Hayem of Paris, Dr. H. Schmidt, of the same place, and Leif Jones, M.P., President of the British United Kingdom Alliance. The first address discussed the question, generally; the second, economically; the third, judicially; and the fourth, politically.

In the discussion which followed these addresses, the principal speakers were Mr. E. Howard, of Letchworth, Mr. Arthur Sherwell, M.P., of London, and Controller F. S. Spence, of Toronto.

FIFTH DAY.

On Friday, the first question taken up was that of the liquor traffic in the colonial possessions of European nations. Rev. John Rauws, of Rotterdam, secretary of the Netherlands Missionary Association ,and Dr. A. H. J. G. Walbeehm, of The Hague, dealt with the subject from the Dutch viewpoint. Baron Joseph Du Teil, of Paris, general secretary of the Colonial Committee of the French National League against Alcoholism, spoke on the subject in general terms. Dr. Hans Paasche, of Berlin, did the same. All the addresses were pointed and interesting.

The next matter dealt with by the Congress was the selection of a place for another similar meeting to be held in 1913. Milan, in Italy, was chosen, and a permanent committee was appointed to make the necessary preliminary arrangements.

In the afternoon, the subject for discussion was 'Organization for Work to Remedy the Evils of Intemperance.' Prepared addresses were delivered by Mr. F. Riemain of Paris, general secretary of the French National League against Alcoholism; Dr. J. Bergman, of Stockholm; Dr. Alfred Smith, of Brennstadt, on general lines, and upon religious temperance work by Prof. L. Gonser, of Berlin; Ecclesiastical Josephson, of Halle and Salle, and Rev. Father Syring, of Heldhausen.

The questions raised in these speeches were further discussed by different delegates, including Mr. Justice E. Lafontaine, of Canada.

'Indirect Work for the Promotion of Temperance,' was the next subject taken up. Dr. G. Volk, of Frankfort, spoke of popular education and information concerning the nature and effects of alcohol. J. W. H. Theobald, of London, described Club and Settlement work. H. Van Der Mandere, of The Hague, told of plans of keeping tempted men employed at home in their leisure hours, and Mr. E. Howard, of Letchworth, spoke again on 'Garden Cities and Town-planning Associations.'

SIXTH DAY.

The forenoon of the closing day of the Congress was occupied with the consideration of two subjects: (1) the Judicial Treatment of Habitual Inebriates; (2) Indirect Work against Alcoholism.

Four papers were submitted, dealing with the question of the most useful method of treating confirmed inebriates. All were by legal men. Compulsory medical treatment, conditional court sentences, and indeterminate sentences were the systems advocated. The speakers were: Dr. J. Van Deventer, of Amsterdam, Dr. R. B. Ledeboer, and Dr. H. C. J. Groot, of the Hague, and Judge W. J. Pollard, of St. Louis, Mo., U.S.A.

In the afternoon a complimentary farewell luncheon was given to the official delegates in attendance, at which interesting addresses were delivered by Dutch Cabinet Ministers and some other national representativs.

SECONDARY MEETINGS.

Delegates attending the conference, representing different organizations, took advantage of their coming together for the purpose of holding special meetings, while the Congress was not in session. Many of these meetings were largely attended, and addresses of very much interest were delivered at some of them. Among the organizations which conducted these secondary meetings may be mentioned:—

The Dutch Temperance Union.
The International Social Abstainers.
The International Railway Total Abstinence Society.
The International Temperance Bureau.
International Priests Meeting.

International Union of Abstaining Physicians.
The Protestant Temperance Unions.
The International Union Against Intemperance.
The Native Races and the Liquor Traffic United Committee.
Abstaining Teachers.
The World's Prohibition Confederation.
The I.O.G.T. Supreme Lodge.
Abstaining Students.
International Catholic Union Against Alcoholism.
The International Moral and Social Commission.

In connection with the Congress, there was also held an exhibition, in which a number of temperance workers cordially co-operated. Its location was the Kunstkring, Heerengracht, at The Hague. Here were shown samples of temperance literature published in many languages; official posters, prepared by government authorities; appliances for the teaching of temperance lessons to young people; many diagrams giving valuable statistics and information concerning the extent of the liquor traffic, and the progress of the temperance cause. Adjoining the exhibition was a lecture room, in which scientific addresses were delivered during the Congress, illustrated by stereopticon views. This exhibition was exceedingly attractive and interesting.

Subjoined is an appendix, giving a summary of some of the most important papers read and addresses delivered at the Congress.

1. Home Treatment of Inebriates.

(By Mr. Jules Joseph, Geneva.)

There is only one means by which an alcoholic patient may be cured. Total abstinence. How can this be ensured without confining the patient?

By visiting the patient at home.

The immediate purpose of such visits. To gain the confidence of the patient. To stimulate his own desire for a cure. To obtain from him a pledge of abstinence.

The subsequent purpose of the visits. To show to the patient an interest in all that concerns him. To help him to keep his pledge by fortifying his will, by making his conscience clear, and his heart more sensitive. (A capital point is to make use of his religious beliefs.)

How may one secure all this? By making oneself well acquainted with the psychology of alcoholism. By making one's self well acquainted with all the personal circumstances of the patient. By knowing how to give good advice and useful directions to the patient's family.

Dangers to avoid: Any marked excess of confidence, or on the other hand, coldness. Any excessive indulgence or rigour towards other faults or habits of the patient. Being indifferent to, or aiding too much the material welfare of the patient.

When to pay such visits. Look carefully for the days and moments the most suitable, the opportunities the most promising. Persevere without being importunate.

By whom should such visits be made. By devoted friends of the patients. By those who have themselves been cured of alcoholism. By salaried persons.

Experience has shown that, despite all their devotion and ability, individual visitors are not able to satisfy all the requirements for the influencing of alcoholics. In every case where possible, Patronage Committees should be formed, to use moral authority over the patient, and influence with the civil authorities. They may help as intermediaries with the trades unions and the employers.

Finally the material or moral, legal or administrative condition of the patient may be such that recourse may be had to a Consultation Bureau.

2. Care for the Families of Inebriates.

(By Miss Wilhelmina Lohmann, of Bielefeld.)

As the mania for alcohol completely wrecks the family life and severely injures the education of the children, organized care for the family of the drinker is absolutely necessary.

This should not consist of charity and in granting support, as this only makes the evil greater, but in a work of redemption which embraces the whole family life. This means bringing the completely disordered circumstances into the right way again. The wife must be shown that abstinence is necessary for good housekeeping and the education of the child. She must learn how to gain influence over her husband so as to cause his becoming a member of a total abstinence society, which she, with her children, shall first join. Such work is best performed by the visits of socially inclined women, as these are naturally the most fitted to do it. These visits must take place regularly, and once a week at least. Such assistants are urged to study the alcohol question and to become themselves members of a total abstinence society, if they do not belong to such already. This cure of inebriates, conducted by women, requires to be directed by a cultivated lady who is a total abstainer and gifted with a knowledge of social matters. She may be appointed in large cities as an official of the public welfare, which should be her chief work.

3. Consultation Offices for Alcoholism.

(By Dr. H. K. Bouman, of Amsterdam.)

Consultation offices for alcoholism can be an important factor in combating drunkenness in thickly populated centres.

By their method of work these offices start with the principle of leaving the drunkards as much as possible to their own social surroundings and the conduct of their businesses, only excepting those cases where repeated attempts in this direction have failed, or psychoses, diseases, injuries, &c., make necessary a temporary stay in an inebriate home or hospital.

Therefore they ought to be continually in touch with existing societies for the combating of intemperance, medical institutions, private doctors, courts of law and police, poor law authorities, charitable institutions of all kinds, &c., and they should work with these different bodies, co-operating where it is possible.

A direct control service springing from the consultation offices themselves and embracing those inebriates entrusted to their care, is moreover necessary.

The treatment given during visiting hours at the offices, should be under medical supervision and in general should have an educational character and may, in special cases, if necessary, receive great help from the officers of the law, but they ought to accommodate themselves to national character and may be modified according to the peculiar circumstances of the country.

Besides the giving of direct help in this way to those inebriates who come for treatment, or to their families, the chief work of the consultation offices ought to be the gathering of statistics concerning problems in the region of combating alcohol, so far as the material acquired can give such information, for example, regarding heredity, different forms of drink mania, influence of social surroundings, anthropological differences in the sphere of inebriety.

4. Inebriate Homes.

(By Dr. Schellman, of Dusseldorf; Dr. Sieffert, Beuthen; Dr. Feldmann, Eckardtsheim.)

1. Inebriate homes are necessary in order to help the drinkers and their families in the right way.

2. Before an inebriate home can be successfully worked, it is above all things necessary that it should have the fullest confidence of the people. For this reason it is necessary that the home should not be connected with the municipal authorities.

3. Before founding an inebriate home there ought to be obtained the concurrence of all temperance societies in the place chosen, who must have a place and vote on the committee of the home. There should also be represented on the committee the municipal council, and societies concerned with the welfare of the sick.

4. The home must have a doctor in regular attendance, although it is not necessary that the superintendent be a doctor.

5. The hours for visiting the home must be fixed by the staff. Frequent changes are not advisable, because the special treatment of the patients would thereby suffer.

6. From the beginning, the home should give no pecuniary help to the family of the drinker. It should help with advice, and show the way which appears necessary in the particular case.

7. Such a home would not be in competition with temperance societies, but only assist their work, procuring them new members at the same time.

8. After the termination of the cure, the home ought to keep the patient under supervision, to guard against relapse. To arrive at this result the home must have at its disposition numerous voluntary male and female assistants.

(By Dr. Sieffert, Beuthen.)

1. In inebriate homes, medical treatment has secured for itself an enduring place beside the older educational method.

2. A thorough medical examination is the foundation of every treatment in such an institution, on that the cure system must be built, and must be both educative and medical.

3. The work of the home is psychical (instruction), dietary (complete abstinence from alcohol), physical (work, gymnastics, baths, &c.,) and in respect to medicine.

4. The medical treatment takes place during visiting hours, by periodical general examination, advice and prescription, whenever possible by suitable intercourse with the sick

5. The educative activity must go completely hand in hand with the medical, when both are not already in the same hands.

(By Dr. Feldmann, of Eckardtsheim.)

The treatment of the drinker in inebriate homes does not only consist in curing the body of the intoxicated person, but also in a careful education of the victims of drink. In education we are concerned with two things. First to educate the patient to voluntary abstinence as a foundation of a useful life afterwards, and secondly, in the complete education of the individual and to cause him to utilize all the powers which he possesses which can be strengthend by an education on ethical principles.

The education in abstinence takes place by the personal work on the patient and by placing the patient in an atmosphere of total abstinence. The educational treatment of the individual takes place through individual means by accustoming him to his duties and by conquering his bodily and mental weakness.

5. Alcohol and the Deterioration of Germs.

(*By Dr. A. Forel, of Yvorne.*)

1. Alcohol poisons the cellular protoplasms. Proof: the degeneration of the vital organs of alcoholics.

2. The germinative cells are in all living beings the transmitters of heredity.

3. Heredity is the latent faculty, or energy, of the germinative cells by which are transmitted, at least in their principal traits the characteristics of kingdom class, order, genus, species and variety, from the progenitors to the descendants, as to form, as also to quality and functions.

4. According to Galton one understands by Eugenism the study of means (natural or artificial selection, or other methods) for arriving at a reproduction of individuals the best, the most capable, and the hardiest; and sterilization of the bad, the incapable, or the degenerate.

5. Under the term Blastophthory, I designate collectively those causes or actions which, without themselves constituting hereditary forces, derange or deteriorate the nature of the germs in such a fashion that the germ-products which are of good hereditary quality find themselves also disturbed and fettered in their ulterior development by the arrangement of their determinants. For example, once produced by an intoxication of the germinative cells, the Blastophthoric effects are able to fix themselves in the descendants, and thus become hereditary in their turn.

6. Alcoholic intoxication of the germinative cellules is the prototype of Blastophthory.

7. Blastophthory presents itself in two forms: Chronic Alcoholic B., and Acute Alc. B. These two forms together constitute one of the chief primitive sources of the said hereditary degeneration.

8. Proofs: (*a*) Statistics concerning the physical and mental degeneracy of descendants of alcoholics: Deume, Palmann, Jörger, Beck, &c.

(*b*) Statistics as to the ascendance of idiots, epileptics, lunatics, neurotics, tuberculosis patients, &c., as to the cause of dental decay, the failure of milk-giving in women, &c.: Jemmy Kohler, von Bunge, &c.

(*c*) Statistics of sick and life assurance societies as to mortality and disease (abstainers and non-abstainers). Swiss statistics as to the cause of mortality.

(*d*) Experiments made as to the progeny of alcoholised animals: Hodge, Combemelle, Cillarillier, Laitinen, &c.

(*e*) The various works of Laitinen as to the diminution of the Pemolytic faculty of the blood after small doses of alcohol: the numerous experiments made on animals and the researches on man.

(*f*) The experiments of Ziegler and Fuhner on the embryos of seals, by the addition to the sea-water of infinitesimal quantities of alcohol.

(*g*) The microscopical examination by Bertholet and Weichselbaum of degenerate vesticules of alcoholics.

(*h*) Acute Blostophthory. The remarks of De Bezzola concerning the epoch of the conception of 9,000 complete idiots, in the Swiss census of 1900.

9. The study of the relations of Blastophthory to hereditary and degeneracy is one of the most important problems of the future.

6. Some Economic Suggestions.

(*By Dr. Henri Hayem.*)

It is important by all possible means, (which means, moreover, may differ much according to the country), to make known to members of parliaments and governments the following economic truths:

1. The production of alcoholic beverages is far from being, for any country, wealth of the highest order. It demands considerable care, costly labour, it is subject to very numerous contingent conditions: unfavourable weather, cryptogramic diseases, insects, &c.
2. The economic force represented by the producers of alcoholic beverages finds itself, and will find itself more and more counterbalanced by an inverse force: that of the producers of non-alcoholic drinks (unfermented wine, beer and cider).
3. It is advantageous to the general wealth of the country to protect and encourage the cultivation of fresh fruits and the sale of preserved fruits.
4. The public treasury can find, through taxes on non-alcoholic beverages and on fresh and preserved fruits, an important compensation for the loss resulting from the prohibition of alcoholic beverages.
5. As a matter of fact the receipts obtained by the state through the taxes on alcoholic drinks are counterbalanced by the enormous expenses occasioned by the mischevious results of alcohol: police, lunatic asylums, prisons, the generally diminished value resulting from the insufficience of the vital forces of the people.
6. It is an advantage for those countries which desire to safeguard the public health to stipulate for, in their treaties of commerce, and to inscribe in their customs tariffs, prohibitive clauses against alcoholic drinks, and to offer as compensation to the countries producing such drinks particularly favourable conditions for the sale of their fresh fruits and conserves, and non-alcoholic drinks.

7. The Duty of the State.

(By H. Schmidt, of Paris.)

Has the state a right to intervene in the struggle against alcoholism? The material, mental and moral ravages caused by intemperance are so great as to menace even the existence of the nation. To suppress such an evil is not merely the power, but the duty of the state.

What ought to be the form and the limits of state intervention? Here is a question that invites wide discussion. Some will argue that the state ought only to render aid to wise moral propaganda initiated by private parties. Others believe that public interest demands whatever legislative action may be found necessary.

In brief, there is a strong, practical case for the defence of the community against the improvidence and weakness of individuals, which would justify the absolute interdiction of the consumption of alcoholic drinks, decided to be injurious in their effects.

But such prohibition is a course so extreme that it ought only to be employed where there exists a serious danger, caused by some specially dangerous drink. Methods less rigid may be no less efficacious. Often they are all that public opinion will tolerate.

The first duty is to help the present generation by measures which have to be very strong, and by rational, scientific education. The next is to ensure the protection of the young against the danger of acquiring the drink habit.

8. How to Influence Parliaments and Governments.

(By Mr. Leif Jones, M.P., of London.)

The temperance movement is not in its origin a political or legislative movement. It is an organized social effort to win individuals to sobriety and to free the com-

munity from the evils that attend upon the common sale and consumption of intoxicating liquors. The process of raising those who have fallen is at best unsatisfactory. Drink stamps its marks upon them: they emerge from the abyss, scarred with the conflict. Therefore, the next stage in our movement is to save the children, and to raise a generation free from the influence of drink. This is going on in every nation, and people are more and more willing to join in such preventive work.

But we have found that with all the efforts of rescuing drunkards and all the work connected with the education of the children we have only just succeeded in stemming the tide of intemperance. People get tired dealing with the results of the liquor traffic. They say: 'Let us attack it at its source. Let us prevent the evils from arising.' Many nations are represented here, we do not know one another's language, but we all know the signs of the prevalence of intemperance: poverty, disease, crime, and misery, marking its path everywhere, so that the whole of civilization, represented as it is, at this Congress, is crying out for legislation to suppress the evils that flow unceasingly from the liquor trade.

Governments depend upon public opinion. That is true of all countries, in varying degree. It is most immediately true of democratic countries, and of countries governed by popularly-elected assemblies. The more democratic the country the more immediate is the pressure upon the government of the day. The wider the franchise the greater the opportunity on the part of the electors of influencing the government, and it is not without significance that our recent triumphs have been won where women as well as men have exercised the franchise. It is true of all social legislation, but temperance legislation most of all, that it depends for its efficiency on the force of public opinion behind it in the men and women who constitute the nation.

Now we come to the practical point—how can we prevail against this organization of the liquor trade, and make the nation's opinion felt in parliament? The thing to do, people say, is to have our own men in parliament, to have our own party in the state, to form an organization of men who shall be Prohibitionists or Temperance Reformers and nothing else. Well, the difficulty we have in our own country—and it may possibly obtain elsewhere—is that we have old established parties; we have divisions of political opinion on other questions than temperance, and I think it would be wholly impracticable dealing with the complicated foreign and domestic affairs which make up the life of a modern state, to establish a temperance party which should be nothing but a temperance party.

On the other hand it is dangerous to entrust the temperance cause to any of the existing parties. What we have to do—and this is the practical problem which I put before the electors everywhere—is to secure that the right men, whatever their opinion upon other questions, men with sound views, are returned to sit in the parliaments of the world. That is to be done by means of the electors—there is no other way.

The main thing, however, is not to get men to parliament. It is the electors to whom the matter must be brought back, for the strength of the movement is in the individual elector. It is not enough to put pressure on at election times. In parliament there are a whole series of questions waiting and jostling each other to be dealt with, and governments take up those questions that are most urgently pressed upon them, not from any necessary indifference towards other questions, but because the most urgent and persistent must receive attention.

Therefore let the elector, even after choosing a sound man, keep pressing upon him the temperance question. If you do this, and have the right man in parliament, it will be found that governments will very speedily become amenable to temperance electors. There is one thing a government always says to itself: 'We must go on being the government of the country, otherwise ruin will follow.' They will always therefore, strive to do the thing that is necessary to keep them alive. There is a clear line of communication between the voters and the government. Let the pres-

sure of the voters be continuous; let it be well organized and well dirceted, unceasing and watchful, and the result is certain.

9.—Canadian Temperance Legislation.

(By Controller F. S. Spence of Toronto).

My statement will be brief. The gentleman who presented the first paper at this session paid a generous compliment to our Dominion and the progress it has made in temperance legislation. The liquor problem has to be faced in Canada as in other lands, and we have the special difficulty of a vast area—more than 3,500,000 square miles—with the sparse population of 8,000,000. There are of course compensating advantages. Our new country is filling up with a virile stock, the enterprising and progressive element, the young blood, of the many nations represented here to-day, alive to the importance of developing the best possible social conditions, and prompt to use political power for that purpose.

Therefore Canadian legislation follows public opinion closely, and takes vigorous hold of the issues created by the liquor traffic. You must judge for yourselves of the wisdom or rashness of our laws, by their form and results. Generally speaking our legislation aims at restricting the drink business as far as the general consensus of public sentiment will permit, and delegating to local authorities power of further restriction or suppression, such as local sentiment will endorse.

There are nine provinces in Canada, each having its own system of liquor legislation, all subject to the possible overriding effect of a general national local option law known as the Canada Temperance Act, under which any country or city may vote out all liquor selling. The provincial license laws also embody, in most cases, local option powers applicable to similar or smaller areas, besides various features of general prohibition character. Under this legislation, in the largest province, Ontario, the granting of liquor licenses and the retail sale of liquor are prohibited in more than one-half of the local municipalities, that is, the cities, towns and villages, and townships The exact figures are as follows:— ,

License municipalities	380
No-license municipalities	442
Total	822

In the largely French and Roman Catholic province of Quebec, the so-called 'wet' and 'dry' division is as follows:

License municipalities	324
No-license municipalities	648
Total	972

The province of Manitoba prohibits liquor selling in 72 municipalities out of a total of 132. Nova Scotia permits no liquor selling except in the city of Halifax. New Brunswick has prohibition in 11 out of a total of 17 counties and cities. Prince Edward Island prohibits all sale for beverage purposes.

The restriction of the drink traffic by general legislation may be illustrated by the conditions that prevail in the city of Toronto, of which I have the honour to be a Controller. The population is about 400,000. The number of retail liquor licenses is 160. The license fee is $1,600, equal to 4,000 guilders, with an additional impost of a percentage of all bar-room receipts above a certain figure. Every license shop or bar is closed from seven o'clock on Saturday night till six o'clock on Mon-

day morning, on every public election day and on Christmas. There are many other restrictions imposed upon the business.

Licenses are issued and the liquor law is enforced by special officers appointed by the government for the performance of that duty. This work is well done.

Through the courtesy of the governments of the Dominion and the province of Ontario, I am able to place in the hands of a number of delegates, copies of some of these liquor laws and reports of their operation. I am also able to supply you with some maps and diagrams illustrating some of the facts and conditions which I have endeavoured to summarize.

As to the future of the temperance movement in Canada I have only to say that the tendencies and forces which have produced the present situation are operating without observable diminution. Practically all the Christian churches, Roman Catholic and Protestant, are working vigourously, for the extermination, as far as possible, of the drink evil.

The strenuous requirements of all phases of the active life of this young country, include the exclusion of any indulgence that might impair keenness of perception, steadiness of nerve, or clearness of judgment.

There are well-informed students of our social life and movements, who to-day feel as confident that ultimately the liquor traffic will be totally prohibited by law in Canada, as they do that the sun will rise to-morrow morning.

10. Alcohol in Colonial Possessions.

(By Rev. John Rauws, of Rotterdam.)

1. The task of the Colonial Governments on behalf of the people and their colonies is the practice of guardianship.
2. In the practice of guardianship we ought to have in view amongst many other things, the moral education whereby good is promoted and wickedness prevented and fought against.
3. The drinking of alcohol as a means of enjoyment brings ruin, and therefore it must be avoided.
4. With gratitude it may be affirmed that the Colonial Governments are making earnest endeavors to keep alcoholic liquors out of the reach of the natives, especially by placing high excise duties on alcohol and also by passing laws of prohibition.
5. Experience teaches us that the placing of high excise duties on the article does not sufficiently prevent the danger of alcohol. Therefore to absolutely avoid all danger we must pass laws prohibiting the importation and the use of alcohol.
6. It is our duty to prevent the evil and thus do good to the natives. The preaching of the Gospel is necessary as this is the source of all blessings for this as well as the future life. Those who are fighting against the evil ought to seek co-operation with Christian Missions.

(By A. J. G. Walbeehm, of The Hague.)

1. Among European peoples, looked at as a whole, the use of alcohol in the last few years has declined considerably.
2. The use of alcohol among the native population of Java and Madura, grows continually, although it is not yet a question of its regular use by the great masses.

3. On account of political and economical reasons, a prohibition law for natives is necessary in Java and Madura and to be wished in those regions of our foreign possessions where it is possible to employ it.

4. A prohibition law like the above will be completely approved of by the great mass of the Javanese people.

5. It is desirable to place also the Chinese under such a prohibition law, although with them, it is not to be expected that it will meet with approval.

6. Regarding other foreigners from the Far East, there is nothing which could prevent a similar measure from being put in force.

7. As to Europeans, all that is necessary is a prohibition to convey or sell alcoholic drinks to persons to whom their use is forbidden.

(By Hans Paasche, of Berlin.)

In Africa total abstinence is necessary for the conservation of:

(*a*) The welfare of the body, mind and spirit of the individual.

(*b*) The social life of the Europeans.

(*c*) The welfare of the natives which is menaced by the use of alcohol.

11. International Action Concerning the Liquor Traffic in Colonies.

(By Baron Joseph Du Teil, of Paris.)

It is shown to-day that the rights of entry and access established by the first Conference at Brussels (1889-1890) and revived at the following conferences (1899 and 1906) have only lessened the growing advance of the importation of spirits into the colonies, which imposes on the signatory powers to the general Act of 1890 the moral obligation to study immediately and to apply in the immediate future protective accessory measures against the dangers arising from alcoholism among the native races, viz.:—

1. The control of the quality of alcohol imported or manufactured in the place, so as to prevent the use and sale of impure or adulterated products.

2. The limitation of the degree of alcohol in the spirits in question in such a way as to render it impossible to import or supply them except in the same condition in which they may be consumed, so as to avoid the use, much too frequent, of alcohols, of 80° or 90°, which, originally free from impurities, may be mixed with toxic matters at the time when they are prepared so as to make them drinkable.

3. The prohibition of private or domestic manufacture (which has the double fault of being at once imperfect and secret) by the prohibition of the importation and sale of small stills and by the detention of the same.

4. The absolute prohibition of the importation or manufacture of all liqueurs of the type of Absinthe.

The adoption of these accessory measures will succeed, if not in restricting the use of alcohol in the colonies, at least in arresting its progress, in hindering the plague which it causes, until the time that the economic and financial conditions of the colonies allow of the prohibition, first of alcohols intended for the use of the natives, and afterwards of all spirituous liquors.

12. Temperance Progress in Quebec Province.

(By Justice E. Lafontaine, of Montreal.)

With my colleague, Mr. Spence, I represent Canada, an autonomous nation within the British Empire, of which it forms an integral and important part. It has two languages. French was spoken by the first colonists and is still the tongue of the greater part of the province of Quebec and some other sections. Both are official in parliament.

Two questions have been discussed this afternoon, the necessity for organization, and the form that organization ought to have. On the first we are all agreed: a mob will never win a victory. On the second, different opinions have been stated, specially in reference to whether such work should be religious or secular. It seems that no absolute rule can apply, and the local conditions must be considered. In countries in which religious sentiment prevails, it would be a mistake not to take advantage of the powerful aid that may be obtained from the church and its ministers. If the question of temperance is a social one, it has also a moral aspect, and as such belongs to religion.

In the Canadian province of Quebec the temperance movement among Catholics was inaugurated by Archbishop Begin and Archbishop Bruchesi, who organized societies in every parish of their respective dioceses. There are also two general associations, the Anti-Alcoholic Leagues of Quebec and Montreal. Such has been the success of this work, that already through the local option plan, the sale of spirituous liquors has been prohibited in 648 out of a total of 972 municipalities, and it is probable that in the near future prohibition will rule in the province of Quebec.

13. Paroling Accused Inebriates.

(By Judge W. Jefferson Pollard, of St. Louis.)

In the police court in the city of St. Louis, in the state of Missouri, U.S.A., an interior city of more than seven hundred and fifty thousand inhabitants, I began my career as a provisional police judge, twenty-one years ago.

More than ten years ago, I began as a provisional judge, and, for the last eight years, as the regular judge of the court, to accept almost daily total abstinence honour pledges, signed voluntarily, in lieu of fine or imprisonment, and made the plan part of the work and machinery of the court. In those cases of offenders arraigned for drunkenness or petty offences growing out of drunkenness, I pursued the following plan:

The offender signed the following total abstinence pledge for a stated period, a year:

As evidence of my appreciation of the opportunity given me, by the judge of the above-named court, to become a sober and better citizen, in staying the fine imposed on me this day, I hereby freely and voluntarily sign the following:

PLEDGE.

"I will abstain from the use of intoxicating liquors of every kind and character for the period of one year from date."

This voluntary honour pledge, not sworn to by the defendant, was in every instance taken in open court, by the judge; the offender to report to the court in person, either at the court or elsewhere, at such times and places as the judge may direct, in order that the offender may lose no time from his employment.

If the pledge is kept, no fine or imprisonment is demanded. The punishment is withheld, though assessed, on promise of the defendant to be of good behaviour by signing the pledge.

This plan puts the responsibility squarely on the judge and makes the defendant responsible to the court. It compels the offender to understand that it rests with him to work out his own salvation and reform himself.

Signing a pledge by a defendant is visible evidence of his promise to be a sober and better citizen, and acts as a moral stimulant and a legal restraint, because of the punishment that will follow if the pledge is broken.

The judge must use discrimination in administering the pledge, so as not to cheapen it, or bring it into disrepute.

One might as well ask a habitual drunkard to sign a pledge not to have a cold as to ask him to sign a pledge not to drink. I acted as my own probation officer, and accepted the pledges from the offenders myself, and during that time only five per cent of those who signed the pledge have violated it.

If any of this ninety-five per cent returned to drink (and there can be no question but many of them did), they did it so adroitly and moderately as not to again disturb the public peace or that of their family, and in this respect I won a victory.

14. The National League Against Alcoholism.

(By F. Riemain of Paris).

The organization of the campaign against alcoholism requires at the same time centralization and decentralization.

1. Decentralization.

Decentralization appears to us as primarily requiring the creation of anti-alcoholic committees, or district departmental, and from the professional and religious societies.

A. District of Departmental Committees. The creation of these committees is justified.

1. Because the forms of propaganda vary according to the districts concerned.

2. Because the leaders of the anti-alcoholic movement residing in the capital cannot devote themselves to those personal inquiries indispensable for obtaining the results desired.

3. Because in the capital it is impossible to check the affirmations made as to matters of fact.

4. Because the district of departmental committees, having a more restricted field of action, are able to work the field more thoroughly.

B. Professional or religious societies. As no force ought to be ignored in the fight against alcoholism, so it is useful to have the large societies which are formed from all those who have the same faith or politics or who are of the same profession. It is undeniable that our great societies, added to the forces with which they are placed in line, will produce a great force, resulting from one religious faith or common social interests, which will contribute most powerfully to the success of our cause.

The professional societies are not less useful. They permit, indeed, of the use of certain means which the other anti-alcoholic workers in general are liable to employ. This admits of appeals which have more chance of being heard because they are made in special terms to a certain category of individuals; experience, moreover, proves this: The railway temperance societies, for example, in most civilized countries, and notably in France, have obtained remarkable results.

2. Centralization.

If it is useful to have the religious and professional societies, and the district committees, it is also indispensable to unite in a central council all those who are fighting against intemperance, in no matter what way. The modern world, as a matter of fact, is evolving more and more rapidly towards democracy, and democracy is the law of the majority. In order that temperance workers may have the greatest possible influence, it is necessary then, at a given moment, that they should be able to avail themselves of the united strength of all, and form a wall of public good against the army of those interested in general intoxication.

Further, the establishment of a central council, has the great advantage of uniting those who have entirely in view the public good, which they hope to realize by different means; and whom prolonged contact with each other will teach mutual esteem and the avoiding of misunderstandings and will reduce to a minimum the contradictions which may exist among their opinions.

Divisions are almost always the result of ignorance: if the anti-alcoholic army is to be united, it is necessary that the chiefs know all their troops.

15. Clubs and Settlements.

(By J. W. Theobald Harvey of London).

Temperance work has considerably expanded since the early days when 'signing the pledge' was the one cure for the evils of intemperance. Gradually the outlook has widened, and temperance workers are recognizing more and more that the tavern provides for a certain demand of human nature which is not necessarily reprehensible. Good company, interchange of opinion, as well as more amusement or refreshment, are cravings demanding satisfaction. The recognition of these facts has led to the creation of clubs, settlements, &c.

1. To take a typical settlement in London. Situated in the midst of a neighbourhood of mean streets, occupied, if not overcrowded by, the earners of small wages, this settlement provides in its various branches, for amusement, recreation, instruction, &c. Not definitely started as a part of the temperance campaign, it nevertheless is essentially an aid to temperance. Experience shows that it becomes almost imperative for the 'settlers' to be abstinent.

2. A typical club. This is somewhat different. There are no residents as in the settlement, but those who are interested come from time to time to help in the work. Here again provision is made for recreation, amusement, debate and refreshment, the latter being supplied at a bar free from alcoholic refreshment.

3. A third effort in connection with a well-known church while combining some of the features of club and settlement is unique in other respects. 'A public house without beer,' where food and drink are provided at low prices, and where a club and a games room offer the comforts of a parlour and the opportunity of billiards, &c. Close by, and under practically the same management, may be found an institution specially for the use of factory girls during the dinner hour, where dining rooms are open, and a play room as well. Opportunity is given for the girls to cook their own food, and encouragement is offered for neatness and good order. The same effort includes help for the homeless and hopeless of a practical nature.

These are merely typical illustrations of what may be done in indirect ways to fight the tavern. They may be multiplied manifold. They are all in London. Many other of the large English towns have institutions of similar character. Indirect

methods are of great importance, and are necessary to support the essential work of teaching that alcohol is evil in itself and its surroundings.

The fact must never be overlooked that personal abstinence is the one real panacea for the evils of intemperance.

E. LAFONTAINE,
F. S. SPENCE.

APPENDIX No. 29.

EXHIBITIONS.

LONDON, March 31, 1912.

DEAR SIR,—I beg to submit the following report of the operations of this branch of the service for the twelve months ending March 31, 1912.

Acting under the instructions of the late Minister of Agriculture, I left Brussels on the 3rd of September, 1910, for London, in order to prepare for our participation in the Festival of Empire and Imperial Exhibition, held at the Crystal Palace, London, and after considerable negotiating secured the site for our building, on which we proceeded to erect a replica of the central parliament building in Ottawa, on about a two-thirds scale.

The site of the grounds of the Crystal Palace is almost too well known to need any description, being without a doubt the finest ground for an exhibition in the city of London, with only one drawback, perhaps, the distance from the centre of the city, but this difficulty was greatly overcome by the electrification of the London, Brighton and South Coast railway from Victoria to the Crystal Palace, who were then able to make the journey from the West End to the Palace in about twenty minutes. Shortly after our building was opened labour troubles commenced amongst the employees of the railroads, which had the effect of cancelling 65 excursion trains from the north of England and also affected other sections of the country which were dependent on the steam roads.

The contract for the erection of the building was given to Messrs. Humphreys, Ltd., of Knightsbridge, who did the work to my entire satisfaction. The most difficult part of the replica, proved to be the painting, more especially so on account of the wet weather we encountered, making it almost impossible to get a lasting colour, but after due perseverance we managed to strike it fairly well, and have received many compliments on it; I suppose the greatest compliment we had was the number of people who were continually tapping the walls with their sticks, &c., in order to see whether they were really stone or not, at the same time doing a certain amount of damage.

The exhibition was opened officially by His Majesty the King on the 12th of May, but as the roads were simply impassable the authorities kept His Majesty in the Palace itself, and therefore we did not open our building although we were quite ready to do so. After bringing a certain amount of pressure to bear on the management we were able to have the roads put in such a condition that we were able to open on the 16th of May.

The exhibit was divided into sections, in which were shown the products of agriculture, horticulture, forestry, fisheries, specimens of Canadian minerals and fauna, also in the agricultural section were shown some types of Agricultural machinery such as ploughs, harrows, seeders, mowers, binders and fanning mills.

The mineral section proved to be one of the most attractive of all the exhibits. In one large show case were shown silver ores, refined silver, asbestos and its products, and other ores, while on the floor itself were table cases, containing gold quartz, alluvial gold, gold nuggets, also small hand specimens of many other different ores. In another section was a scene depicting the aurora borealis, indicating that Canada's mineral riches extended to the Arctic regions. We have also added to our exhibit a dissolving view of the Cobalt silver camp, showing in the first picture the country as it was before railroad building was commenced; the second, showing how the silver was discovered during the course of construction of the railroad; the third picture shows the town and district of Cobalt to-day; the whole scene being worked by a series of dissolving lights; this proved to be a great drawing card. Near this section was a very fine display of marble principally from Ontario and Quebec; this exhibit proved very attractive to builders and contractors.

The centre feature of the building represented a huge iceberg, in the recesses of which were shown fruits preserved in bottles, by a special process, with the inscription, 'Fruit from Rudyard Kipling's Lady of the Snows. Grown in the Open.' This was very interesting to many of our visitors who had evidently read the poem. We also had commercial fruit shown in boxes and baskets, the apple display being particularly effective.

In the agricultural sections we had two large panoramas, the one called past and present, showed in the foreground mounted specimens of wild animals and birds as they appear on Canada's western lands, whereas the picture itself showed a farm with its buildings, fields of grain, and grazing stock, also mountains with beautiful fruit farms in the valleys. The other picture showed Canada from the head of the Great Lakes to the Pacific Coast, with its vast prairie farming lands and elevators for the handling of the grain. With this picture we had a model railway in operation showing how the grain is transported, and how the trains run through a great spiral tunnel, giving an idea of the difficulties to be overcome in railroad building in Canada. In separate cases were shown natural and manufactured agricultural products, such as flour and cereals from the different Canadian mills.

The forestry section contained a large number of fine specimens of pulp wood, as well as soft woods for building and decorative purposes, and painted scenes of a pulp wood forest, and also one of a beaver dam, with live beavers working in the foreground, over which was the inscription, 'The Earliest Known Wood Cutters and Dam Builders in the World.'

The fish exhibit consisted of a numerous collection of Canadian fish, most of them mounted in their natural skins, the remainder being plaster and gelatine casts.

The decorations of the building were entirely executed by members of the Canadian staff and were very much admired and praised. The outstanding feature of the decorative scheme was a series of pictures made from grains and grasses, which astonished the visiting public, who were hardly able to believe that such could be the case, other features were the large number of the very rare mounted heads of wild animals, and a series of remarkable transparencies that formed a frieze all around the building, and illustrated the importance of the industries of the Dominion.

In the early summer we had the privilege of receiving a great many prominent persons, among them being His Royal Highness Prince Arthur of Connaught, and Ex-President Diaz of Mexico. We also met many Canadians, some of whom were The Right Hon. Sir Wilfrid Laurier, late Prime Minister of Canada, the Hon. Geo. E. Foster, Minister of Trade and Commerce, Col. the Hon. Sam Hughes, Minister of Militia, the Hon. John Haggart, late Minister of Railways and Canals, also many others, including senators and members of parliament, who all seemed quite delighted to see the keen interest taken in our exhibit.

In summing up I might say that the exhibition closed on the 31st of October, and although we had not such a large aggregate attendance as we have had at other

exhibitions I consider that we have done just as good if not better work here on account of the fact that the people we had were nearly all interested in Canada, and not merely exhibition sight-seers. On some days we had as many as 60,000 people in the building, but owing to our large floor space the building was never overcrowded, and therefore everyone was able to see the exhibit to the best advantage.

We are now preparing our exhibit for this year at the Crystal Palace, which I earnestly hope will be a credit to Canada and to the Department over which you preside.

The whole respectfully submitted,

WM. HUTCHISON,

Canadian Exhibition Commissioner.

The Honourable the Minister of Agriculture,
Ottawa.

APPENDIX No. 30.

TOBACCO.

OTTAWA, March 31, 1912.

SIR,—I beg to submit a report of the work done by the Tobacco Division from April 1, 1911, to March 31, 1912.

As during the previous season, the greater part of the work of this division was carried on at the experimental field of the Central Farm at Ottawa and the experimental stations of St. Jacques l'Achigan, Que., St. Césaire, Que., and Harrow, Ont.

At the Experimental Farm eighteen varieties of tobacco were sowed on April 21, dry seed being used. Some varieties, such as 'Comstock Spanish,' 'Canelle,' 'Big-Ohio,' and 'Blue Pryor' were grown chiefly for the production of seed, while others were tried with a view to ascertain if they were adapted to our climate and conditions.

The Central Experimental Farm is well situated for such experiments, being almost at the centre of the tobacco growing districts of Canada. With a few necessary changes, observations made at Ottawa may serve as a guide to Quebec as well as to Ontario growers.

Among varieties lately imported or revived, some such as 'Brazils' and 'Aurora' were expected to fill a long felt want in our tobacco industry, which our farmers have, so far, been unable to produce with advantage: a tobacco suitable for use as fillers, with the proper aroma, the proper strength, and sufficient productivity. The production of 'Cubans' in the Okanagan valley has not been neglected, the 'Cuban' is one of the varieties tried during the season 1911-12 in the province of Quebec, on our station of St. Jacques l'Achigan.

Other varieties such as 'Souffir' and 'Rustica Russes,' were used to demonstrate the possibility of obtaining in Canada tobacco with a sufficient percentage of nicotine to be used profitably for the extraction of this alcaloid. Nicotine, as is well known, has been selling at very high prices, particularly in Europe during the last few years, and European wine growers and horticulturists have experienced great difficulty in securing sufficient quantities of this product. It would be interesting therefore to find out if Canadian industry can produce an article for which there is such a great demand.

The spring of 1911 was exceptionally favourable to the growth of seedlings.

The beds were sown on the 21st of April, the seedlings were ready to be set out on the 21st of May, and the setting out on the various plots was done between the 22nd and 27th May.

Heavy rains, during this period, helped the seedlings, but interfered with the application of poisoned bran, used for destroying cutworms; the latter were therefore very troublesome.

It is impossible, as yet, to give the final results of the field experiments carried on in 1911 on the Experimental Farm. Most of the tobacco from the crop of 1911 is now being fermented, and it will be necessary to wait until the fermentation is over.

It was observed on the field, however, that tobacco of the 'Brazil' variety may yield in Canada very nearly as much as the 'Comstock Spanish,' that is from 1,000 to 1,200 pounds per acre. If the taste and aroma of this 'filler' tobacco find favour with the Canadian manufacturers it will find a ready market. Being an average yielder, it may be sold with profit at the average price per pound, while the 'Cuban,' which was tried in Quebec, gives too light a crop to be grown with profit, at the price offered by the manufacturers.

The 'Aurora' is a petioled tobacco which, we were told, is used in Ohio as filler for cigars. It does not appear to be very suitable for this purpose; however, we shall not give an opinion on the matter until this tobacco has been fermented. It is fairly early, but cures very easily. It takes, in curing, a very pleasant brick colour, and while it may not be suitable for the cigar industry, it is certainly a very good type of pipe tobacco. Although the petiole is very prominent, the proportion of stems in this tobacco is not larger than that observed in the majority of varieties with sessile leaves, the stems being comparatively fine.

Among the varieties examined with regard to the production of nicotine, some have yielded as much as 10½ per cent of nicotine in dry tobacco, although grown in a light soil.

The possible production of nicotine per acre has yet to be figured out. The delay in constructing the warehouse, where we are now busy sorting and fermenting the products, has made it impossible for us to complete this experiment, the results of which will be given out later.

A warehouse for the sorting and fermenting of our tobacco has been built on the Central Experimental Farm. This is a great improvement in the equipment of our division.

In future, we will handle our crop from the seedling to the finished product, that is, when the tobacco, after being sorted and fermented, is ready to be submitted to the manufacturers. This warehouse is in charge of a foreman, who is held responsible for the sorting and fermenting. When we have a sufficient number of expert workmen, we will be able to prepare our products so as to comply with the most exacting requirements.

Unfortunately, the construction of this warehouse was greatly delayed; it was ready at the end of March while it should have been completed by the end of August. Therefore, although the quantity of tobacco to be handled for the first year was comparatively light, the work of fermenting could not be started before the 11th April when the first pile of tobacco was built up. It will not be possible to give a definite opinion as to the value of the products until the fermentation is completed.

Our whole time was given to the handling of the crop which was in danger of spoiling, owing to the high temperature of the rooms in which it had to be kept; this is the reason for our postponing the publication of some results that we were anxious to give out earlier.

STATIONS AT ST. JACQUES L'ACHIGAN AND ST. CESAIRE, QUEBEC.

The results of the work carried on at these stations during the season 1911-12 are set forth in Bulletin No. A. 13, of the series of the Tobacco Division.

The season 1911 was particularly favourable to the growth of the seedlings and the setting out operations were started on May 20, which is an early date especially for St. Jacques l'Achigan.

However, a long period of drought, especially in the northern counties, endangered the crop for some time. The tobacco ripened early as a rule, and the products were a little shorter and a little stronger than is usual in a favourable year. The effect of frequent cultivation was well marked; only the fields thoroughly cultivated gave normal crops.

At St. Jacques station, tobacco was grown as follows:—

1 acre of Yamaska.

1 acre of Big-Ohio x Sumatra.

1½ acres of Cuban.

¼ acre of Turkish tobacco.

At this station all the seeds were sown in cold beds, after the method described in our Bulletin No. A. 12, with the exception of one hot bed. Mushrooms appeared in such quantities on the hot bed that it had to be abandoned, whilst the cold beds came out extremely well, maintaining at night temperatures from 48 to 53 Farenheit; during the day the temperature often rose to 80-85 Farenheit, but never above.,

These cold beds have now been in use for two years, and there is no longer any doubt as to their efficiency. No fermenting manure is used, therefore, there is less moisture, and a more even temperature. The seedlings are almost as early, a great deal stronger, and the beds, as well as the plants, are less affected by disease.

Thin seeding, not over one-seventh of an ounce of seed for 100 square feet of bed, the use of moderately hot beds, and better ventilation, such is the way to secure strong and early seedlings. Well managed cold beds made, after the method recommended by Mr. Chevalier, will fulfil these conditions, even in the northern counties in the province of Quebec.

The yields in weight in 1911 did not fully answer our expectations. The crop suffered from the drought, as well as those of the neighbouring farmers, but we note a gradual increase from year to year in the yields; this is the result of better cultivation and greater fertility.

The crops at St. Cesaire were as follows:

1 acre of Yamaska, 1 acre of Big Ohio x Sumatra, ½ acre of Comstock,

The latter were grown chiefly for seed production.

The cutworms were very numerous and interfered with the setting out; about 6 per cent of the seedlings had to be reset. The drought was not so severe at St. Cesaire as in the northern counties, and our crop looked promising when it was severely injured, on the 12th of August, by a hailstorm, which destroyed or injured about 30 per cent of the leaves as well as a large number of seed plants.

This is the third time since we started experiments at St. Césaire that our fields were damaged by hail, and that the work done at this station is almost completely lost.

The district of Yamaska has regularly suffered from this cause during the last few years. It might be interesting to see if such disasters could not be prevented by means of 'hail preventers' similar to those that have given such good results in France for the last three years.

The station of St. Césaire has been abandoned and replaced by a larger station (about 65 acres) established at the very outskirts of the town of Farnham. It is hoped that more help will be available; the means of access are easier, and, owing to the greater area, the varieties will be grown on a larger scale. Up to the present time, owing to the small size of the experimental plots, the quantity of tobacco of each variety has been quite insufficient to admit of proper handling.

The enlargement of our station for the district of St. Césaire will enable us to make full use of our new warehouse at the experimental farm; all the products of

the station will be shipped to the warehouse as soon as they are out of the curing sheds.

Mr. Pierre Leduc, on whose farm the old station was established, has well understood the reasons which caused us to ask for the cancelling of our lease and has willingly granted our request. I seize this opportunity to recognize his ability and the zeal which he has displayed during the three years that he was in charge of this small experimental farm as foreman. The few results that we have obtaineed, in spite of unfavourable weather conditions, are largely due to his initiative and efforts.

An interesting article on the three years rotation which has been adopted on our experimental stations will be found in Mr. Chevalier's report.

It is not claimed that this rotation is the best for all Canadian farms, but we consider it as the shortest rotation that can be used wherever tobacco is grown. It is hard to realize how many farms have been ruined by growing tobacco exclusively, with insufficient manuring.

The station of St. Jacques l'Achigan gives us a striking instance of this fact. For the last three years, the yields obtained in tobacco, grain, and clover have been steadily increasing and this increase has been maintained (except for a light decrease as regards clover), even during the dry season of 1907. The cultivation, the quantity of fertilizers applied, have been the same, but the yield of the crops increases as the land becomes richer, cleaner and easier to work. It is hoped that the yield will be still greater in 1912, when we go back to our first tobacco field, which has had the full benefit of the rotation.

The experiment with chemical fertilizers used in conjunction with farm yard manure, and which was carried at the station of St. Jacques l'Achigan, has generally confirmed the results of experiments carried on in 1909 and 1910; furthermore it brings out the important part played by phosphoric acid in the soils of this district in spite of the high proportion of this element in the land under test.

The analysis reveals about 0·70 of phosphoric acid in tobacco lands of Quebec province, however, an application of superphosphate, even in very small quantity, gives striking results, whilst, in the district of Essex, where chemical analysis reveals only 0·18 of phosphoric acid, superphosphate has very little effect. It is hoped that this division will soon be able to make a study of the various tobacco soils in Canada. Although the soils of Quebec contain an important stock of phosphoric acid, it is clear that the greater part of the latter is not held in an available form, but a problem which requires investigation is the possible affinity of some varieties for some elements. This affinity is no longer in doubt, and must be reckoned with when the results secured in Essex are compared to the results in Quebec; in one case the variety tested is the 'White Burley'; in the other case the varieties come nearer to the seed leaf types, which are supposed to have better burning qualities and a finer and more elastic texture.

The Cuban variety tried in 1911 on the station of St. Jacques l'Achigan with the Brazilian variety tried at Ottawa during the same season, did not give the results that were expected. The yield in weight, under the most favourable conditions, did not exceed 774 pounds per acre. The price of raw tobacco being 15 cents per pound, the growing of this varity canont be recommended to the farmers of the province of Quebec. However, in a normal year, it is hoped that from 850 to 900 pounds will be obtained, but evidently the hope of obtaining as heavy a crop in Quebec as it gives in Okanagan must be abandoned.

A small plot of about ¼ of an acre has been planted in Turkish tobacco. The yield from this small area was 200 pounds of leaf tobacco, which gives a yield in weight of 750 to 800 pounds per acre. This is a better yield than was expected.

As noted by Mr. Chevalier, the cost of cultivation for this tobacco is much higher than for other varieties. Owing to the close setting of the plants, all work must be

done by hand, and the leaves must be harvested separately, as they must be plucked from the plant as soon as they have the exact degree of maturity to give the colour required.

The tobacco from our crop is now at Ottawa; we fear that the quality has suffered from the delay in handling, due to the fact that the warehouse was not ready. The sorting of the crop of Turkish tobacco of 1911 should have been done in the latter part of last fall. In any case the various phases of the growing of this tobacco, as understood in Canada at the present time, are given in a chapter of Mr. Chevalier's report.

HARROW STATION (ONTARIO).

The results of the work on this station during the season, 1911-12, are given in Bulletin No. A. 14 of the series of the Tobacco Division.

The station of Harrow has been enlarged towards the end of the spring of 1911, by the acquisition of a plot of land that stood between the station and the high road from Harrow to Kingsville, a road upon which it was expected to have the main entrance to the station. This purchase enables us to increase the number of plots adapted to the growing of yellow tobacco (cured by hot air). It includes a small ridge, fairly well drained, consisting chiefly of a light loam which seems to be favourable for the growing of yellow Virginia; an orchard of about an acre, and about three-quarters of an acre of stony and rolling land unsuitable for cultivation of any kind. The orchard, which is a little out of the way, will be kept as it is. The stony part has been utilized as a site for the buildings; the residence of the foreman, and a new shed which is used as a curing house and as a shelter for part of our implements.. The spring was very favourable to seeding operations in Essex and Kent, as well as in Quebec. Instances of failure were not nearly so numerous as usual, and the high prices quoted for seedlings at the time of setting out can be explained only by the great demand arising out of the extraordinary increase in the area set aside for the cultivation of white barley in the south of Ontario during the season of 1911. Some growers doubled and even trebled the extent of their plantations, and many of them, having decided somewhat late to plant more extensively than usual, were short of seedlings and had to apply to their neighbours for the same. A notable fact is the increase in the number of beds under glass. This system, which seems to be the only efficient one, and which we have not ceased to recommend since the Harrow station was established, is being more generally adopted. Various sorts of beds have been laid out by Mr. W. A. Barnet, the officer in charge of the Harrow station, who refers to them in his report for the season of 1911, and concludes by some practical advice which should be followed by every tobacco grower.

With the exception of the Virginia, for which very early seedlings are required and hot beds have to be used, the cold bed, which is made up of good materials, sound, sifted and well fertilized, insures at all times a plentiful production of seedlings. The glazed sash gives more heat than the ordinary cotton cover and shelters the seedlings better from rain and variations of temperature. A close watch has to be kept, however, as sunstrokes are to be feared in bright days. The latter may be easily guarded against by raising the sashes and covering the under surface with lime water, fairly thin.

Special attention was given to the growing of yellow Virginias, as in the two previous seasons. The season of 1911 seems to have been more favourable than the preceding ones, so far as the colour of the tobacco is concerned; possibly because the Virginia was grown on a plot better suited for this variety.

The conclusion to be drawn from Mr. Barnet's experiments is that it is difficult to obtain, in our conditions, anything but a light red leaf. The yellow leaves (lemon yellow), in so great demand, are always the exception. However, if the proportion of

light red leaves in a crop is sufficient, it is not difficult to find a use for such crop in Canadian factories. The demand is so great that prices will be profitable for a long time to come (20 to 25 cents a pound), unless the area planted in yellow tobacco increases out of all proportion to the requirements. The production of tobacco with a coarse tissue, poorly ripened and cured green or red brown, is to be avoided. Mr. Barnet says that the best way to avoid this defect is to plant as early as possible during the latter part of May, if possible, and to cure only two lots of tobacco in the same season, in the special curing farm used for the curing of yellow tobacco. Each curing period, including the time spent in filling the kiln and removing the products takes about ten days. An experience of three years has shown that a third curing period ends always too late in the season, when the right temperature can no longer be maintained in the kiln. At that time, the products, even those that have sufficiently ripened, are generally undergoing a second growth, due to the effect of fall rains, they get green again, are swollen with water, and cannot take the required colour, in spite of all the precautions at harvesting time and during the curing process.

We have tried to ascertain if it was absolutely necessary to split the stems of Virginia plants before taking them in the kiln shed. By leaving the products on the field a fairly long time before taking them in the special curing barn, Mr. Barnet has secured, with tobacco harvested in the usual way (cutting the plant at the base of the stem) practically the same colour as when the stem is split from top to bottom and the tobacco is taken the same day in the kiln. The only thing necessary is to lengthen a little the last phase of the curing period, as it is more difficult to cure solid stems than split stems, as might be expected.

This observation has little importance as regards the quality of the final product, but this system of harvesting has some advantages from a practical point of view. It is quicker than the American method and does away with the use of the special knife. Some training is required before this knife can be handled with sufficient speed without tearing the leaves.

As during the previous years the yields in weight of our crop of burley were much above the average. Now that our station is established permanently, it will be possible to locate exactly the site of the plots on which the various rotations are to be carried, and it is expected that the yields of the station at Harrow will show the same gradual increase as was observed at St. Jacques l'Achigan.

The work done at the Harrow station, during the last three years, shows conclusively that the land was exhausted when possession of it was taken, although it was excellent tobacco land. The striking effect of nitrogenous fertilizers on the fields of Burley under experiment cannot otherwise be accounted for. The quantity of potash and especially of phosphoric acid could be reduced; the results obtained by Mr. Barnet are conclusive on this point. It should be noted, however, that all the plots under experiment have been manured previously with farmyard manure. It is possible that ten tons of farmyard manure may have left in the soil all the potash and all the phosphoric acid required by a normal crop of Burley, and counterbalanced, to a certain extent, the effect of the potassic and phosphoric mineral fertilizers used as complements.

Mr. Barnet's conclusions throw a light on the advantage of using farmyard manure in conjunction with chemical fertilizers. On sandy land, with coarse particles, such as those of South Essex and Kent, it is hard to maintain for a long time a sufficient supply of humus. To do so one must resort to heavy manuring or to ploughing under leguminous plants.

The comparative failure of a part of our tobacco fields where a crop of rye had been ploughed under, should be sufficient to prove that all plants are not suitable for green manuring. On the other hand, the delay in the ripening of Burley, observed on another plot, where clover had been ploughed under, shows that it is better, in the case of a four years' rotation including tobacco, corn, grain and clover, to adopt the

following order: tobacco, grain, clover and corn. There is no serious objection to have the tobacco come after corn, provided a good application of manure is given to the soil in the spring.

One fact was clearly brought out by the experiments at Harrow; even in a dry season, rather unfavourable to the action of chemical fertilizers, the money spent on the latter has been at least doubled, almost in every case. Mr. Barnet recommends the use of these fertilizers in all their forms, as the best investment that a farmer can make. The conservation of his capital; (the fertility of his farm; the increase in the interest on the latter, (increased yields); and the desire to maintain his reputation (products of higher quality); these are certainly three convincing arguments for all those who think that all the yields of a large farm may be gradually exhausted, trusting to time and fallowing to make good the losses suffered by the soil.

The combined curing barn built on the Harrow station during the season 1911, has given very good results. With a reduced floor surface it will accommodate the yield of a field of three acres of Burley; the ground floor is used as a shed for the greater number of agricultural implements. The ventilators in galvanized iron give quite as good results in ventilating the building as the rotative ventilators used in our first curing house, and are much less expensive.

The galvanized iron roof protects the building against the effects of lightning without interfering with the curing of the products. It should be very hard indeed for a grower of Burley to build a cheaper and more efficient curing house.

PRODUCTION OF SEED.

Besides the experiments carried on at the various stations, we have grown tobacco seed in sufficient quantity for the free distribution which is made, every year, at the beginning of spring, to the growers applying for the same. Each sample distributed contains about one-quarter of an ounce of seed of good quality, carefully selected on the field, and carefully cleaned in the laboratory before packing; all the seeds deficient in weight are eliminated. The number of samples obtained in 1911 of various origin, is shown in the following list:

Comstock Spanish—	
St. Césaire Station	1,582
Experimental Farm, Ottawa	1,183
Canelle—	
Experimental Farm, Ottawa	1,232
Blue Pryor—	
Experimental Farm, Ottawa	243
Yamaska—	
St. Césaire Station	42
St. Jacques' Station	43
Big Ohio x *Sumatra*—	
St. Jacques' Station	147
St. Césaire Station	47
Big Ohio—	
Experimental Farm, Ottawa	109
White Burley—	
Harrow Station	531
Total	5,159

Making a total of about 80 pounds of selected seed, valued at $480 to $500.

DISTRIBUTION OF TOBACCO SEED.

The number of tobacco seed samples distributed in 1912, amounted to 3,184 composed as follows:—

Comstock Spanish, St. Jacques	1,156
" " St. Césaire	261
Canelle	1,171
White Burley	326
Havana Seed Leaf	93
Yamaska	58
Connecticut	47
Cuban	31
Montmelian	11
Blue Pryor	9
General Grant	8
Big Ohio x Sumatra	7
Big Ohio	3
Verel	1
Warne	1
Hazlewood	1

RECEIPTS.

The sale of the products from the various stations has brought the following receipts for the season 1910-11:

Harrow Station	$ 3,212 03
St. Jacques' Station	354 82
St. Césaire Station	103 34
Central Experimental Farm	307 30
Total	$ 3,977 49

The tobacco of St. Césaire Station has been injured by hail, which accounts for the poor receipts from this establishment. The best results from a financial point of view have been secured on the Harrow Station. The allocation for this station, for the season 1910-11, was $3,664.70, including about $500 set aside for the improvement of the land and the purchase of implements, which leaves about $3,100 for working expenses. As a matter of fact the expenditure has not reached this figure, therefore the Harrow Station is self-supporting, and, not counting the salary of the superintendent, not only covers its expenses but pays the interest of the money spent on this establishment. This shows the advantage of having experimental stations of a moderate size. They supply almost free of charge, tobacco in sufficient quantity to permit of making a thorough test of each variety. Again, from an educational point of view, they enable us to show to the growers, in the interest of whom these stations are established, that it is possible for them to obtain as good results as we do and sometimes cheaper than we do.

CONCLUSIONS.

Taken as a whole, the season of 1911-12 was favourable for tobacco growers in the province of Quebec. The seedlings were better than usual, owing to the early spring, and in spite of the prolonged drought which, at times, gave serious fears, an average crop was obtained.

In Ontario the yield of Burley has exceeded, in unhoped proportions, all the yields that have been secured so far. It is believed that the production of Burley in 1911, in the counties of Essex and Kent, reached 15,000,000 pounds. Possibly this estimation is slightly exaggerated, but in any case the area planted in tobacco in 1911 in the province of Ontario was more than double that planted the previous season. The yield suffered from various causes: drought, the inexperience of new growers, and too light manuring, but such as it was, it was almost phenomenal and will probably long remain in the memory of Ontario tobacco growers.

Reports on the next crop predict a return to normal areas, limited in any case by the quantity of manure available, the material and curing houses. It is because they went beyond these limits that some growers suffered serious losses, caused by a lack of help at the time of harvesting and lack of curing houses of sufficient capacity. From an economic point of view the industry of Canadian tobacco still keeps going ahead.

This does not apply to the prodigious development of the growing of Burley in 1911, and which will, result sooner or later, in a slight retrogression, but to the steady progress made in the province of Quebec in the growing of cigar tobacco.

Everything leads us to believe that, before long, the production of tobacco 'binders' will have reached the limit. When three or four establishments of the same capacity as those that are working now at St. Césaire and Farnham will be in full operation, it will be almost time to stop in order to avoid overproduction and the consequent lowering of prices. At that time the areas cultivated will have to be kept in the right proportion to satisfy the increased demand resulting from increase in population. Fortunately, a vast field is still open to the activity of Canadian growers. We still have to produce in Canada filler tobacco suitable for our manufacturers. This problem has been studied for the last two years and it is hoped that a solution will soon be arrived at.

When the Quebec grower is in a position to produce fillers and 'binders' in sufficient quantity for the needs of the market, we hope that he will give his attention to the production of pipe tobacco (seed leaves and Kentuckys), an industry which stands in need of improvement.

I have the honour to be, sir,

Your obedient servant,

F. CHARLAN,

Chief of the Tobacco Division

To the Honourable Minister of Agriculture,
Ottawa.

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DEPARTMENT OF AGRICULTURE, CANADA

REPORT

OF THE

DAIRY AND COLD STORAGE COMMISSIONER

FOR THE

FISCAL YEAR ENDED MARCH 31

1912

Dairying, Fruit, Extension of Markets and Cold Storage

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REPORT

OF THE

DAIRY AND COLD STORAGE COMMISSIONER

OTTAWA, March 31, 1912.

To the Honourable
The Minister of Agriculture.

SIR,—I have the honour to submit my report for the year ending March 31, 1912. Following the practice of former years, the report is presented under four heads, corresponding to the divisions under which the work of the branch is carried on.

DAIRYING.

THE SEASON OF 1911.

The season of 1911 was notable for the hot dry weather that prevailed over the greater part of the Northern Hemisphere and which seriously curtailed the production of milk in many countries besides Canada. The shortage thus created in the supply of butter and cheese in the world's markets, coupled with an over export of butter from Canada during the actual manufacturing season, raised prices to the highest point ever reached in this country.

Notwithstanding the somewhat unfavourable conditions, the export figures, if considered with the estimated growth in home consumption, show that production is still on the increase.

Following the shortage in the Northern Hemisphere there was a marked decline in the production of butter in Australia for the season of 1911-1912.

It became apparent early in the winter that the stock of stored butter in Canada, plus the winter production, would be insufficient to supply the demand until the new season's output would be available. As a result, a large quantity of butter was imported, principally from New Zealand, the total quantity coming from that country down to date being 2,139,944 pounds. There has also been imported during the year 929,318 pounds from the United States.

At first glance it may appear strange that Canada should go almost to the opposite end of the earth for a portion of her butter supply, but when it is considered that the freight and duty (3 cents per pound, under the Preferential Tariff) on freshly made butter from New Zealand amounts to about the same as the cost of carrying the Canadian article from June, July or August to the month of March, to say nothing of the loss through deterioration in the quality of the butter, the matter is not so surprising after all.

Canada never has, and probably never will produce enough butter during the winter months to supply current demands, and that means either that a part of the summer surplus must be held in storage against the period of shortage, or that the deficiency must be met with importations from the Southern Hemisphere. It is not unlikely, therefore, that the Pacific coast, at any rate, will continue for some years, as in the past, to secure partial supplies from Australasia. Fortunately, the demand arises during the flush of the manufacturing season in that part of the world.

THE EXPORT TRADE.

The Trade and Navigation returns show that the export trade in dairy produce has on the whole been well maintained during the period under review, although the season was not as favourable for milk production as that of 1910. There was a further decline in the quantity of cheese exported, and also in the shipment of cream to the United States, but the shrinkage in these two items was balanced by an increase in the quantity of butter exported.

The New Zealand shipments of cheese during 1910-1911 and during the season now drawing to a close (1911-12), have not made the increase that was expected by the trade.

Australian shipments of butter have declined on account of the drought which is seriously affecting some parts of the country.

Germany continues to grow in importance in the international trade in dairy produce, every year importing larger quantities of butter. It would appear that on the whole the world's consumption of dairy produce is increasing rather faster than production, and that reserve stocks are lighter at the present moment than they have been for many years. Australia, New Zealand and possibly Russia (Siberia) are the only countries that are likely to increase their exports of butter or cheese to any great extent. In these countries there is a steady development in agriculture, which tends towards live stock rather than cereal production, and there is not the same industrial growth that we have in Canada. On the other hand, consumption is increasing faster than production in the United States, Germany, and in some other European countries.

The outlook for dairying at present is exceedingly good, and there is every encouragement, from the market point of view, for Canadian farmers to increase their production.

THE HOME TRADE.

The home trade in dairy produce, while a very large one in the aggregate, has not, in the past, attracted as much attention as its volume would seem to warrant, for the reason that much of the supply for home consumption passes directly from producer to consumer, or at most through the hands of local retail grocers.

This was especially true as long as each province or district produced sufficient for its own needs, but of late years a new feature has developed in the home trade, as a result of the enormous increase of population in the western provinces, creating a demand which has far outstripped the local production. There was a surplus for export in the western provinces in the nineties, but now many thousands of tons of butter and cheese are shipped annually from Ontario and Quebec to points west of the Great Lakes. This trade is becoming so important that the largest operators, who

formerly devoted their attention exclusively to the export trade, are now giving some attention to it.

Unfortunately, there is a considerable quantity of very inferior dairy butter produced in the western provinces, and as the local markets will not use it, it is sent to Montreal, most of it eventually finding its way to New York, where it goes to the renovators.

This shipment of butter out of the prairie provinces while other butter must be sent back to supply the local demand, involves a great economic waste. There is the loss of double freight on every lot that is shipped to the east, and some one has to pay unnecessary commissions.

The Provincial Departments of Agriculture are striving to improve the quality of this butter, but the problem which confronts them is one of great difficulty and progress is necessarily slow. Many of the buttermakers are foreigners, with low standards of dairy sanitation, and even those whose intentions and ambitions are of the best are often hampered by lack of proper facilities and equipment. A contributory cause of no little importance in the production of this inferior butter, is the manner in which it is handled by the country storekeepers, into whose hands it usually passes from those of the producer. It is exposed to high temperatures and various other deteriorating influences which tend to decrease its value very rapidly.

A great improvement would result if these storekeepers would provide themselves with small ice storages, in which the butter could be placed as soon as received. The cost would be very little and would soon be repaid in the higher value of the butter.

MARKET MILK.

The demand for milk to supply the city of Winnipeg and other towns in Manitoba is having a noticeable effect on the supply of milk at the cheese factories and creameries in that province. The creameries in the Fraser Valley in British Columbia are having a similar experience on account of the growing demand for the city of Vancouver.

The milk dealers in both Winnipeg and Vancouver have imported milk during the past winter, from the United States, the supply for Winnipeg coming from the neighbourhood of St. Paul, Minn.

The enormously increased consumption in Montreal, Toronto, Ottawa and other eastern cities is yearly making the problem of furnishing the people of these large centres with an adequate supply of wholesome milk a much more difficult one than it formerly was. There has been no lack of enterprise in the matter and the milk distributing companies, which have been established in all the principal cities, under various plans, while not organized as philanthropic institutions, are really doing a very humane work. The best of these city milk companies are exceedingly well conducted and they are doing a great deal to improve the milk supply in their respective localities.

A marked improvement in the quality of milk and cream has greatly increased the consumption per capita, and the more general use of ice cream has given that article considerable importance in the home trade.

There has been great activity during the past year on the part of Medical Milk Commissions, Boards of Health, and other bodies both voluntary and official, looking towards improvement in the milk supply of towns and cities. Some of the regulations,

or perhaps it would be more correct to say suggested regulations, have been rather impracticable, but the whole tendency is towards better conditions than have prevailed in the past.

EXPANSION OF THE CREAMERY INDUSTRY.

There is considerable activity in dairy production in Nova Scotia, and several new creameries will be in operation in that province in 1912. Creamery buttermaking in Nova Scotia has received an impetus from the marked success which finally attended the operation of the creamery at Scotsburn in Pictou County, by the Dairy Division.

The creamery industry is growing steadily in some parts of the prairie provinces. That part of Alberta lying between Calgary and Edmonton, and along the Saskatchewan river in the province of the same name, and the two districts where most progress is being made. Much of the new country being opened up by the Grand Trunk Pacific Railway, and other lines running to the west and northwest of Edmonton, appears to be eminently adapted for stock raising, and there is every reason to suppose that a large and flourishing dairy industry will eventually be developed in those regions.

The quantity of creamery butter manufactured in Ontario is steadily increasing although the increase is partly due to a diversion of milk from the cheese factories.

THE SHIPPING OF GREEN CHEESE.

There is probably nothing which threatens the supremacy of Canadian cheese on the British market so seriously as this practice of shipping immature cheese. It seems to be one of the most difficult things to control in connection with the business, and yet all are agreed that the practice is harmful. The difficulty seems to be that the salesmen cannot arrive at unanimity in the matter of holding the cheese until it has reached a proper stage of ripeness. They are afraid of losing the market or of a neighbour getting an advantage, and appear to think that they gain in weight of cheese by saving the shrinkage that would occur if the cheese were held a week or two longer. As a matter of fact, in properly equipped cool curing rooms, where the temperature is kept at the right point, the loss of shrinkage would be avoided and the increase in the consumption of cheese, on account of its better condition, would be one of the surest ways of increasing the demand and thus improving the price. The arguments are all in favour of holding the cheese for a reasonable time in the factory, and it is hoped that the salesmen and the patrons—the latter are really the most interested persons—will yet see the folly of continuing the practice which has already resulted in great harm to the industry and will be more seriously felt in the future if it is persisted in. Although the price of cheese was higher in 1911 than it has ever been in Canada before, it would have been still higher if the cheese had been better cured before being placed on the market.

COW TESTING.

Dealing more specifically with the actual work of the Dairy Division, I am pleased to be able to report that the movement having for its object the improvement of dairy herds, and generally known as "cow testing," was considerably extended during the year. The division endeavours to promote this important work both by propaganda

and by the actual participation of members of the staff who supervise the work of the cow testing associations, or act as Recorders for the Dairy Record Centres. The total number of cows under test in 1911 was 10,412. Of this number, 6,793 were under test for the full period of lactation, an increase of 1,952 cows as compared with the year 1910.

DAIRY RECORD CENTRES.

Dairy Record Centre is the name that has been given to our newest scheme for the advancement of cow testing. An expert is employed who gives his whole time to a limited district. He is required to provide himself with a horse and rig and to get into touch with the farmers within a reasonable radius of a common centre. It is his business to encourage as many as possible of these farmers to weigh the milk of individual cows and to take samples for testing. He must then see that the samples are properly tested, or do it himself if satisfactory arrangements can not be made to have it done at the local cheese factory or creamery. Once a year a complete census of all the herds is taken with full particulars as to breeding, feeding and means taken to improve the average production. With this work carried on for a number of years in the same locality a mass of information will be secured which ought to be valuable and lead to good results. Six of these Dairy Record Centres were established in the spring of 1911; three in Ontario, two in Quebec and one in the Maritime Provinces. During the past few months eight additional men have been employed for as many new Centres, and supervisors have been appointed in New Brunswick and in Prince Edward Island.

In former years the cow testing movement was kept going only through considerable activity and pushing on the part of the Dairy Division, but it is gratifying to be able to state that during the past few months the interest in this work has increased very much, and requests are now coming from all quarters for information and assistance. Several years of persistent educational work was necessary to get the cow testing habit established. The records in the Dairy Division show many instances of remarkable increases in the average yields of herds following systematic and careful weeding, based on the information gained from the testing of individual cows. It was only after we were able to publish these results that many farmers became convinced, to the point of action, that even though the testing of the cows does involve a little trouble that it is well worth while if intelligently followed. There is every reason to believe that the average yield of all the cows in Canada could be increased by at least 20 per cent if general attention was given to the matter.

THE COOL CURING OF CHEESE.

While this Branch has not carried on any active work with respect to the cool curing of cheese since the Government cool cheese curing rooms were closed in 1906, no opportunity has been lost of keeping the advantages of the system prominently before the cheese factory owners and patrons. Plans and specifications have been supplied to those who propose to equip their cheese factories with cool curing rooms, and experts connected with the staff, who have had special experience in this connec-

tion, have attended meetings and consulted with factory owners for the purpose of assisting them in carrying out the necessary improvements. Although the conditions under which cheese have been marketed during the past two or three years have interferred to some extent with the general adoption of the system, there has been a large number of cool curing rooms erected in connection with the cheese factories, and in some districts nearly all the factories are now so equipped.

EXPERIMENTS IN THE CARE OF CREAM

Mr. George H. Barr, Chief of the Dairy Division, assisted by J. G. Bouchard, continued the investigations and experiments in the handling of cream for cream gathering creameries, which were begun in 1910 at the Renfrew Creamery. The conclusions drawn from this work have been published in Bulletin 32 for general distribution among creamery patrons.

THE NEW DAIRY STATIONS.

The officers of the Dairy Division have long felt the need of having control of a cheese factory and a creamery where the various problems which arise in connection with the manufacture of butter and cheese could be studied under actual factory conditions.

It was a matter of much satisfaction to myself and the dairy staff when authority was given for the purchase of a creamery at Brome, Que., and two small cheese factories at Finch, Stormont County, Ont., with a view of establishing dairy stations at these two points. The plans for the Brome Station have not been fully matured, but a contract has been let for the erection of a cheese factory at Finch, which will serve the patrons of the two small factories, that have been operated in ruinous competition for several years, about a mile apart. Their revenue was so small that it was impossible for the management in either case to render the service which milk producers are entitled to.

The new factory at Finch will be of permanent construction, with cement concrete floors and walls, a thorough system of drainage, including septic tanks, and will have a cool curing room with an ice chamber attached, and a refrigerator for butter on the air circulation system.

The equipment will provide for the manufacture of cheese, the pasteurization of whey, the manufacture of whey butter, casein, &c. It will be operated as a model factory, on a purely business basis, and it is hoped that the example and illustration which will thus be afforded, will have the effect of working an improvement in the character and management of many of the cheese factories in Eastern Ontario. At the same time the Station will be available for experimental work and facilities are being provided with that end in view.

The Brome Creamery is expected to serve the same purpose in the Eastern Townships.

THIRD DOMINION CONFERENCE OF DAIRY EXPERTS.

Acting on your authority I was pleased to arrange for the Third Dominion Conference of Dairy Experts on December 6th and 7th, 1911.

All the leading instructors and dairy school superintendents were invited to attend, and their expenses in coming to the Conference were paid by the Branch. All the provinces were represented except British Columbia, whose representative was not able to leave home at that time.

It is almost needless to point out that the principle object of such a conference is to assist the various experts and instructors in arriving at uniform methods, and in determining as far as possible, from the discussions that take place, as to which methods are preferable where more than one is suggested.

These Conferences are very highly appreciated by those who take part in them, and there can be no doubt about their usefulness as an educational factor.

A verbatim report of the papers and discussions at this Conference is being published as a special report for general distribution.

THE ENFORCEMENT OF DAIRY LAWS.

The Inspector of Dairy Products reports very little violation of the dairy laws. There has been only one complaint respecting the practice of "stuffing" cheese with worthless curd or old cheese, since the Inspection and Sales Act was amended in 1908, making it a penal offence. A conviction was secured in the case mentioned.

The Inspector visits the various centres from time to time and secures samples of butter for analysis. No imitation butter has been discovered and only a few cases in which the legal limit of water has been exceeded. One case of excess of water in Canadian butter was reported from England by the High Commissioner. An investigation was made at once, at the creamery where the butter was made, and samples of the butter then being manufactured proved to be within the legal limit of 16 per cent of water.

FRUIT.

THE SEASON OF 1911.

The most notable feature of the year, in connection with the fruit growing industry, was the phenomenal crop of apples in Nova Scotia, being very nearly double any previous record. This is accounted for partly by the fact that a large number of young trees are just coming into bearing, but the enormous crop was chiefly due to the fact that all trees, old and young, were very heavily laden.

With the problem of this record crop facing them, the different elements in the Nova Scotia apple trade were stirred to unusual activity. For the first time, Nova Scotia apples came into keen competition with Ontario and British Columbia fruit, in the markets of the prairie provinces. It is estimated that at least 176,000 barrels of Nova Scotia apples were shipped west, reaching such distant points as Calgary and Edmonton, in considerable quantities.

The meeting of the East and the West, on common ground as it were, has introduced a new note into the discussion of national aspects of the fruit trade. This was distinctly in evidence at the recent Dominion Conference of Fruit Growers.

A CLEAN CROP.

Another prominent feature of the season was the unusual freedom from fungous pests. It is many years since the apple crop was as "clean" as it was in 1911. The amount of spraying done was greatly in excess of any previous year and climatic conditions were unfavourable for the development of fungous diseases.

A YEAR OF PROGRESS.

A distinct advance was made during the year in more than one respect. Mention has already been made of the greatly increased amount of spraying done during the year. Better organization for the packing and handling of the crop has been followed by satisfactory results. The packing of fruit and especially the packing of apples in boxes showed marked improvement. The number of boxes used for apples in the eastern provinces was very largely increased. The annual apple shows at Toronto, St. John, N.B., and in Nova Scotia furnish the best evidence as to progress along this line.

THE COMMERCIAL EXPORT OF PEACHES.

Following up the trial shipments of peaches to Great Britain made by this Branch in 1910, a consignment of 195 cases was sent to the Festival of Empire Exhibition, Crystal Palace, London. The peaches arrived in perfect condition and 'stood up' for several weeks after being placed in position in the Canadian exhibit and are reported to have attracted much attention, and to have received very favourable comment.

Mr. C. A. Dobson of Jordan Harbour, who shipped a large number of cases in 1910, continued the export business in 1911, shipping in all 3,180 cases. On November 29th, he wrote to this office as follows:—

'I am sure you will be delighted to know of the success I have met with in the 'delivery of peaches on the English market. At the recent Fruitgrowers' Convention 'in Toronto, I was asked to give expression in regard to my success in deliveries, 'and I have much pleasure in making the statement that the shipments arrived in 'perfect condition, and that we endeavoured to live up to the instructions out-lined 'by you in your pamphlet. (Bulletin 27, giving the details and results of the trial 'shipments by this Branch in 1910.) I stated that if growers, desiring to place their 'fruit on the English market, followed the suggestions contained in your pamphlet in 'dealing with export of peaches, nothing but success would follow. It is quite prac-'ticable to make deliveries successfully throughout England, Ireland and Scotland.'

THE ADMINISTRATION OF PART IX OF THE INSPECTION AND SALES ACT.

The fruit inspection service was extended during the year, by the appointment of five additional temporary inspectors. An inspector was stationed for the first time at Saskatoon, Sask., and additions were made to the staff in Ontario and Nova Scotia.

The violations of the law with respect to the packing and marking of apples were not as numerous as they were in 1909 and 1910, notwithstanding the fact that the number of actual examinations were greatly in excess of any former year. This was probably due to improved packing and partly to the cleaner condition of the apples.

Delegates and Officials, at the Third Dominion Conference of Dairy Experts Ottawa December 6 and 7, 1911.

THE FRUIT CROP REPORT.

The publication of a monthly Fruit Crop Report from May to September has been continued. The collection of reliable data from month to month respecting the state and prospects of the fruit crop in Canada, and to some extent in other countries, is attended with a very considerable amount of work. Persistent effort is necessary to keep a reliable list of crop correspondents in good working order. The compilation of the report calls for care and judgment, with an intimate knowledge of fruit growing conditions in all parts of Canada. Chief McNeill, who gives this matter his personal attention, has laboured assiduously to make the report of such a character as to furnish the fruitgrowers and dealers with information that will be of value to them.

INSTRUCTION IN BOX PACKING OF APPLES.

At different times during the past five or six years, this Branch has employed expert packers from the Pacific coast to give instruction in box packing to the fruit growers in the eastern provinces. Mr. P. J. Carey, fruit inspector in Ontario, who has given special attention and study to this kind of work, was employed during the past season as instructor in box packing, dividing his time between Ontario and Nova Scotia. Mr. Jas. Gibbs, head packer for the Farmers' Exchange, Kelowna, B.C., was also engaged for six weeks to give instructions in Ontario and Quebec, and to repack the apples for the display at the Fruit Growers' Conference. It is proposed to extend this work during the coming season.

APPLES FOR INTERNATIONAL EXHIBITIONS.

The duty of selecting, packing and storing apples for the international exhibitions in which Canada has participated for several years past has been assigned to this Branch. In September, 1911, some 200 boxes of Fameuse and McIntosh Red were collected and sent to the Festival of Empire at the Crystal Palace, London, to supplement the display of 1910 fruit which was forwarded in the spring. Over 700 boxes of later varieties were secured in the different provinces and are now held in cold storage to be sent to London in April. Some of these will be shown at the great International Horticultural Exhibition to be held in London in the month of May, and the remainder will be used to continue the exhibit at the Crystal Palace throughout the coming season.

The apples will be placed in cold storage, in London, as soon as they arrive, and will be taken out in small lots from time to time as may be necessary to make a continuous exhibit until next October.

It is believed that the apples now on hand are the finest lot ever prepared for such purposes in this country. The selection and packing was done by members of the staff, except in British Columbia, where the provincial department of agriculture very kindly attended to the matter.

SPECIAL INQUIRY INTO THE FRUIT GROWING INDUSTRY.

It seemed to be desirable that some effort should be made to collect in one statement, for the whole country, an account of the general tendency in the expansion of fruit growing, the most pressing needs of the industry, the probabilities of production

in the near future, in the different localities, and other information of a similar character. It was impossible for the Fruit Division, with its limited staff, all of whom were busily engaged with other work, to undertake this inquiry, but the Department was fortunate in being able to secure the services of Mr. W. H. Bunting, the well known fruit grower of St. Catharines, Ont., to carry out the investigation. Mr. Bunting, accompanied by Mr. Fred. Grindley, B.S.A., as secretary, beginning in July, visited all the fruit growing districts of Canada in some detail, making inquiries into different aspects of the industry. The investigation has been completed, and the observations made, with the conclusions arrived at, will be submitted in a special report which is now ready for the printer. Those who are interested in the fruit growing industry will look forward to the publication of this report with interest

THE FRUIT GROWERS' CONFERENCE.

The Third Dominion Conference of Fruit Growers met according to your invitation, under the auspices of this Branch of the Department, in St. Patrick's Hall, Ottawa, on February 14, 15 and 16. There were 42 regularly accredited delegates present, representing the provincial fruit growers' associations; the provincial departments of agriculture; the agricultural colleges; the co-operative societies and the apple shippers associations. A number of visitors attended the different sessions of the Conference.

A very lively interest was taken in the proceedings of the Conference, and all the resolutions that were introduced were discussed with intelligence and keenness, but also with fairness and consideration for the views of others.

These conferences serve the very useful purpose of bringing together representative fruit growers from different parts of the country, the meeting of which, apart from the proceedings of the conference, must have no little educational value. In a country like Canada, with such widely separated sections devoted to fruitgrowing, it is necessary that there should be some intercourse between those living so far apart, if the industry is to be developed on sound national lines.

Acquaintances are formed at these meetings which are bound to be useful in many ways. The Conference being the accredited mouthpiece of the fruitgrowers at large, is the proper medium through which the aims and desires of those engaged in the industry may be laid before the Minister of Agriculture and his colleagues. By no other means could the needs of the fruit growers find such ready and authoritative expression.

If future conferences could be held in the summer season, it might be advisable to consider the practicability of convening them in different fruit growing districts. This would add to the interest of the meeting, and increase its educational value by affording those from a distance an opportunity of learning at first hand something of the fruit growing conditions in districts that otherwise they might never be able to visit.

The two dominant notes of the Third Conference were a demand for closer inspection of apples at the points of packing and shipment, and a request to have the Fruit Division separated from the other divisions which make up the Dairy and Cold Storage

Branch, giving the Chief officer an independent position in which he would be directly responsible to the Deputy Minister.

INSPECTION AT POINTS OF SHIPMENT.

As to the first mentioned demand, the matter of meeting it appears to hinge on the point as to whether the inspection is to be made all but universal, amounting practically to official grading, or whether it is to be continued as it was originally intended it should be, merely as an incidental service to act as a deterrent to false packing and marking, and to some extent as an educational force in promoting better methods. If the principle of general inspection at points of shipment is adopted, then the country must be prepared to meet an enormously increased expenditure under this head. It is doubtful if many who advocate such a course fully realize what a large staff of inspectors would be required to carry it out, and how hard it is to get suitable men to fill such positions, although that statement does not imply that there is any lack of applicants.

THE SEPARATION OF THE FRUIT DIVISION.

With respect to the proposal to give the fruit division an independent status, the writer finds himself in a somewhat awkward position in attempting to discuss it. Possibly the wisest course would be to refrain from discussing it at all.

There is this to be said, however, that the discussions on the subject have made it quite clear that the proposal is a purely impersonal one, based on a perfectly natural desire on the part of the fruit growers to have the industry which they represent receive a more distinct recognition. This appears to arise partly from a somewhat mistaken and persistent view that the fruit division occupies, under the present organization, a secondary position to that of the dairy division. That view is not correct. The status of the two divisions is exactly the same and the chiefs of each stand in precisely the same relation to the head of the Branch, although it must be admitted that the designation of the Branch, and the title of its Chief Officer, lend some colour to the belief that the one is placed in an inferior position to the other. The present organization, from an administrative point of view, is an excellent one, permitting as it does an extent of co-operative effort between the divisions of cold storage and the extension of markets with the fruit division, that would not be practicable under separate branches.

On the other hand, if the writer were relieved of responsibility for the fruit division, it would enable him to give more attention to some other lines of work, which lack of time now prevents. A connection with the fruit industry, which is a very pleasant and agreeable one, would still be maintained through the cold storage and markets divisions in the handling, transportation and cold storage of fruit along with other perishable products.

THE DISPLAY OF APPLES AT THE FRUIT CONFERENCE.

A new feature was introduced at the recent fruit growers' conference, by arranging for a collection of apples from all the fruit growing provinces, as well as a few boxes from the states of Washington, Oregon and Virginia. The display consisted of about

150 boxes of choice specimens of the leading varieties from each district, and it was undoubtedly the most representative exhibit ever made in Canada. Two boxes of apples, grown by Mr. A. P. Stevenson, Dunston, Manitoba, created considerable interest. The display, which was very much admired by delegates and visitors, proved very clearly that the finest of apples can be produced in all the recognized apple growing districts of Canada. His Royal Highness the Governor-General, who honoured the conference with his presence for a short time, examined the apples with much interest and very graciously agreed to accept a box from each province, which were accordingly sent to him at the close of the conference.

EXTENSION OF MARKETS.

INSPECTION OF CARGOES AND REFRIGERATOR CARS.

The work which is more especially assigned to the Extension of Markets Division includes the inspection of cargoes at Canadian and United Kingdom ports, the supervision and inspection of the iced car services for the carriage of butter, cheese and fruit, and the placing of thermographs with perishable cargo, in order to secure continuous records of temperature during the voyage across the Atlantic or to South Africa and Australasia.

The reports of the cargo and refrigerator car inspectors have proved most valuable in furnishing the specific details which are necessary in dealing with railway or steamship companies to secure improved services. It is only fair to say that the responsible officials of these companies are not unwilling, or opposed, as a rule, to remedying defects in the services which they control, when they are convinced that the fault lies within their sphere of authority. The trouble is that when an official depends on the employees under him to furnish reports as to general complaints respecting damage to goods in transit, these reports are apt to be coloured because the information, if accurate, might reflect on the employee himself or on his fellow workers as is very often the case. Previously to the inauguration of these inspection services, it was very difficult to obtain any satisfaction from the transportation companies with respect to damage to perishable food products. They nearly always appeared to be able to shift the burden of responsibility to some other shoulder. Moreover, there was much damage sustained that was never known to the shippers. The trade accepted many things as inseparable from the handling of produce, which are now known to be easily avoided. With our very complete records, both in Canada and at ports of discharge in the United Kingdom, and the publicity which may be given to them, it is much easier to fix the blame where it belongs.

I may add that these services have to-day no more ardent supporters than the officials of the transportation companies over whose operations they were designed to act as a compelling force in securing some much needed improvements. These officials realize that careful handling and improved facilities work out to their advantage, in the reduction of claims, etc., as well as to the owners of the produce, to say nothing of the enhanced reputation of that produce on the world's markets.

The information respecting condition of packages, condition and temperature of contents, etc., at various stages of transit from the initial shipping stations to the

docks in Great Britain, which is made available through the reports of the inspectors employed in this Division, and which is furnished to those shippers who are directly interested in particular consignments, has enabled progressive exporters to meet the requirements of the trade, in certain respects, as no other agency could have done.

COMPILATION OF WHOLESALE PRICES OF PRODUCE.

Through the Extension of Markets Division, this Branch has recently given considerable attention to the matter of compiling wholesale prices for animal and agricultural products. The leading market journals are received and prices in all the principal markets of Canada and the United States are entered in a permanent record. This record, to be useful and reliable, requires to be compiled with judgment and care, coupled with a good general knowledge of farm products and market conditions. Mr. W. W. Moore, Chief of the Division, has a special aptitude for such work, and I look forward with confidence to having in this Branch a complete and trustworthy record of information along these lines.

INFORMATION FOR SHIPPERS OF FARM PRODUCTS.

The Markets Division also furnishes Canadian shippers of farm products with information relating to outside markets and places before them individually, inquiries of a commercial nature which are received by the Department from firms abroad. An endeavour is made to keep in touch, as far as possible, with the international trade in these products, so as to be in a position to give reliable and intelligent advice to those Canadian shippers who are seeking new markets, or to others who may be looking for such products as Canada has to dispose of.

COLD STORAGE.

CREAMERY COLD STORAGE BONUSES, 1911.

The number of applications for creamery cold storage bonuses, received during the year, was 65 as compared with 27 during the previous year. Of these 65 applications only 47 were recommended for the full bonus of $100, the other 18 not having complied with the conditions. This brings the total number of creameries that have received the full bonus of $100 since 1897 up to 466. In addition to this number 145 creameries received $75 and 139 $50 each. The total payments on this account to date amount to $64,485.

ICED CAR SERVICES.

The usual iced car services for the carriage of butter, cheese and fruit were arranged for with the railway companies.

For the iced butter car service the Department, through this Branch, guarantees ⅔ of the earnings of a minimum car load for cars operated over a definite route every week, plus $4.00 for icing. These cars pick up butter in any quantity, at way stations, and the shippers are charged the usual L.C.L. rates.

For the iced cheese car services the Department agrees to pay the icing charges to the extent of $5.00 per car, on a limited number of cars that are ordered by the shippers themselves for car load shipments during 11 weeks beginning in June.

For the iced fruit car service the Department pays icing charges to the extent of $5.00 per car for the shipment of fruit in car loads intended for export.

GUARANTEE OF EARNINGS OF COLD STORAGE SPACE ON STEAMSHIPS.

Arrangements were again made to have small cold storage chambers on steamships reserved for the carriage of fruit only, to London, Liverpool, Glasgow and Bristol. Chambers were reserved on 19 steamships between August 12 and September 30. This provision, which was made first in 1909, has resulted in a large increase in the export of tender fruit to Great Britain. In many cases the chambers are filled so there is no charge on the Department. The cost of the whole service has been very small compared with the importance of the trade which it is hoped to develop.

THERMOGRAPHS.

The practice of placing thermographs with perishable products, in the different parts of the steamers where such goods are stowed, was continued and a large number of temperature records were secured. The Branch has records of the temperature at which practically every shipment of produce was carried across the Atlantic in 1911, and also of many shipments to South Africa and Australia.

COLD STORAGE SUBSIDIES

Six contracts for the payment of subsidies under the Cold Storage Act were entered into during the year at the following places:—Calgary, Alta., Edmonton, Alta., Moosejaw, Sask., Saskatoon, Sask., Regina, Sask., and Joliette, Que.

Applications are now under consideration from Brantford, Ont., North Bay, Ont., Brandon, Man., Chatham, Ont., Fort William, Ont., and Pacofi (Queen Charlotte Islands), B.C.

GENERAL.

PUBLICATIONS.

The following publications have been issued during the year:—

Bulletins.

No. 28. "The Dairying Industry in Canada, being an Historical and Descriptive Account."

29. "Notes for Factory Cheesemakers."

30. "Cream Cheese."

31. "A List of Cheese Factories, Creameries and Condensed Milk Plants in Canada."

32. "The Care of Cream for Buttermaking." (A revised edition of No. 15.)

Circulars.

4. "Creamery Cold Storage Bonuses."

Fruit Crop Reports.

A monthly Fruit Crop Report was issued from May to October. (5 Numbers.)

Plans for Dairy Buildings and Small Cold Storages.

Plans and specifications for small cold storages for dairy farms, country residences and creameries; plans for cold storages suitable for fruit growers or co-operative fruit packing houses; plans for cheese factories with cool curing rooms and for creameries on both the cream gathering and separator systems, have been sent to all who applied for them.

There is a growing demand for information of this kind from farmers and owners of suburban and summer homes and camps. Country merchants and grocers are also taking more interest in the subject of cold storage. I hope to have ready for distribution within the next few months a new bulletin on this subject.

MEETINGS.

Addresses have been given at a large number of dairy and fruit meetings during the year. All the principal dairy and fruit conventions in eastern Canada and some in the western provinces have been attended by one or more members of the staff.

Mr. J. C. Chapais, Assistant Dairy Commissioner, has spent the greater part of his time lecturing throughout the province of Quebec. A special series of dairy meetings, addressed by Messrs. J. C. Chapais and J. N. Lemieux were held in the Counties of Beauce and Dorchester, during February and March. Considering the state of the roads and weather at the time, the attendance at these meetings, which averaged over 200, speaks well for the future of dairying in that district.

A series of Fruit and Orchard meetings in Middlesex, Kent and Lambton Counties were organized and attended by Chief McNeill and Inspectors Brown and Carey.

Mr. Geo. H. Barr, Chief of the Dairy Division, in addition to attending provincial conventions, has, along with Messrs. C. F. Whitley, Harvey Mitchell (Maritime Provinces), Jos. Burgess (Ontario), I. Trudel (Quebec) and V. Bojeson (British Columbia), attended a large number of local dairy meetings, called chiefly for the purpose of promoting cow testing work.

The writer was honoured during the past winter with invitations to give addresses at the annual conventions of the New York State Dairymen's Association, the Wisconsin Cheesemakers' Association and the New York State Agricultural Society. These invitations were accepted with your kind permission.

THE USE OF LANTERN SLIDES.

This Branch has now in use three lantern outfits, with small acetylene illuminants, which are used by the speakers at many of the meetings, for the purpose of illustrating

their remarks, and for demonstrating in such subjects as are suitable for that method. The use of the lantern has been found very helpful in bringing certain matters to the notice of the people who are interested.

CORRESPONDENCE.

A large amount of correspondence, covering a wide range of technical subjects as well as routine matters, is carried on by this Branch.

Replies to requests for information in relation to the production of milk; the testing of milk; the manufacture and curing of cheese; the manufacture of butter; the management of cheese factories and creameries; the construction and erection of dairy, fruit and cold storage buildings; the preservation and cold storage of perishable food products; the transportation of and the commerce in all kinds of farm products, and many other topics both related and unrelated to the work of the Branch, occupies a considerable part of the time of the technical members of the staff. We encourage this correspondence because we feel that much useful work can be done in that way.

The routine correspondence with the members of the outside staff, is naturally growing as the staff is increased, and is now a very considerable item in the day's work.

THE STAFF IN 1911-12.

The complete staff, in both the inside and the outside service, including temporary fruit and cargo inspectors and temporary clerks, numbered 94 during the past fiscal year.

In the inside service at Ottawa, there were 6 technical or semi-technical officers, and 21 clerks, 7 of whom are stenographers.

The outside staff, which numbered 67 at the maximum was made up as follows:—

EMPLOYED BY THE YEAR.

1 Assistant Dairy Commissioner. (J. C. Chapais.)
4 Dairy Experts.
9 Fruit Inspectors .
1 Fruit Inspector and Packing Instructor.
3 Special Fruit Inspectors. (At the United States Border.)
1 Chief Cargo Inspector. (At Montreal.)
1 Cargo and Refrigerator Car Inspector.
1 Cargo and Fruit Inspector.
1 Cargo Inspector.
1 Chief Cargo Inspector for Great Britain. .
4 Cargo Inspectors in Great Britain (At London, Liverpool, Glasgow and Bristol).
6 Recorders for the Dairy Record Centres.

EMPLOYED FOR PERIODS OF 4 TO 7 MONTHS.

16 Temporary Fruit Inspectors.
10 Helpers to Fruit Inspectors.
4 Cargo Inspectors.
4 Refrigerator Car Inspectors.

ACKNOWLEDGMENTS.

It is only fair to say that the staff as a whole has rendered faithful service during the year, and I am personally indebted for loyal support and assistance.

The general record of the staff for punctuality, industry and attention to duties is excellent.

Messrs. W. W. Moore, Chief of the Extension of Markets Division, A. McNeill, Chief of the Fruit Division and Geo. H. Barr, Chief of the Dairy Division, have all been untiring in their efforts to promote the work especially assigned to them. I have depended on these officers, with Mr. J. C. Chapais, Assistant Dairy Commissioner, and Mr. C. F. Whitley, Compiler of Dairy Records, for a large share of the work in preparing this report.

I have to acknowledge also the hearty co-operation of the Department of Inland Revenue for making analyses in connection with the administration of the dairy laws.

I have the honour to be, Sir,
Your obedient servant,

J. A. RUDDICK,
Dairy and Cold Storage Commissioner.

APPENDIX I.

REPORT OF J. C. CHAPAIS, ASSISTANT DAIRY COMMISSIONER.

SAINT DENIS (en bas) COUNTY OF KAMOURASKA P.Q., March 31 1912.

Mr. J. A. RUDDICK,
Dairy and Cold Storage Commissioner,
Ottawa.

SIR,—I beg leave to present my twenty-second report as Assistant Dairy Commissioner, which covers the period of twelve months, ended March 31, 1912.

SUMMARY.

With the exception of two Dominion conferences held in Ottawa, one in last December, and one in last February, which I have attended, I have devoted all my time to the province of Quebec and I have, during that period, made in twenty-four counties, one hundred and thirty-three visits in one hundred localities. I have delivered one hundred and fourteeen lectures before fifteen thousand eight hundred and thirteen persons, of whom five hundred and sixty-five were butter and cheese makers. The average attendance at these lectures has been one hundred and thirty-eight persons. Of the one hundred localities visited, I went for the first time to thirteen of them. I have travelled seven thousand, seven hundred and thirty-one miles to perform my work.

I give here a list of the counties and localities I have visited and where I have delivered my lectures, with reference letters indicating the purpose of the meetings I thus attended.

TABLE OF VISITS AND LECTURES.

Counties.	Localities.	Visits.	Lectures.	Letters of Reference.
	Province of Ontario.			
Carleton	Ottawa	2	1	a, c
	Province of Quebec.			
Beauce	Beauceville	1	1	c
	St. Côme de Kennebec	1	1	c
	St. Ephrem de Tring	1	1	c
	St. Evariste de Forsyth	1	1	c
	St. George	1	1	c
	St. Honoré de Shenley	1	1	c
	St. Joseph	1	1	c
	St. Martin	1	1	c
	St. Samuel	1	1	c
	St. Sébastien	1	1	c
	St. Victor de Tring	1	1	c
	St. Vital de Lambton	1	1	c
	Ste. Marie	1	1	c
	St. Anges	1	1	c
Berthier	Cap St. Gabriel	1	1	f
	St. Damien	1	1	f
	St. Gabriel de Brandon	1	1	f

TABLE OF VISITS AND LECTURES—*Continued.*

Counties.	Localities.	Visits.	Lectures.	Letters of References.
	Province of Quebec—Con.			
Brome	Eastman	1	1	c
	St. Etienne de Bolton	1	1	c
	Sutton	1	2	d, g
Chambly	St. Bruno	1	1	b
Champlain	St. Adelphe	1	1	c
	St. Louis de France	1	1	c
	St. Maurice	1	1	c
	St. Narcisse	1	1	c
	St. Prosper	1	1	c
	St. Severn	1	1	c
	St. Stanislas	1	1	c
	St. Théophile du Lac	1	1	c
	St. Timothée	1	1	c
	St. Tite	1	1	c
	Ste. Thècle	1	1	c
Chicoutimi	Chicoutimi	2	1	f
	Jonquières	2	1	f
	Laterrière	4	1	f
	St. Alexis	2	—	f
	St. Alphonse	5	1	f
	Ste. Anne	1	1	f
Dorchester	Frampton	1	1	c
	St. Anselme	1	1	c
	St. Bernard	1	1	c
	St. Isidore	1	1	c
	Ste. Claire	1	1	c
	Ste. Hénédine	1	1	c
	Ste. Marguerite	1	1	c
Jacques Cartier	Macdonald College	2	3	a, c
Kamouraska	St. Denis	1	1	c
	St. Pacôme	4	4	b
	St. Pascal	1	1	g
	Ste. Anne de la Pocatière	1	1	d, e
Lac St. Jean	Chambord	1	1	f
	Hebertville	1	1	f
	Mistassini	2	1	f
	Normandin	2	1	f
	Peribonca	3	1	c, f
	Roberval	3	2	f, g
	St. Bruno	2	—	f
	St. Gedeon	1	1	f
	St. Jerome	1	1	f
	St. Felicien	2	1	f
	St. Joseph d'Alma	3	1	f
	St. Wilbrod	1	—	f
	Ticonabe	1	1	f
	Vauvert	2	2	g
L'Assomption	La Plaine	1	1	f
L'Islet	L'Islet	1	1	c
	St. Aubert	1	1	c
	St. Eugène	1	1	c
	St. Jean Port Joli	1	1	c
	St. Rock des Aulnaies	1	1	d, c
	Village des Aulnaies	1	2	d, c
Maskinonge	St. Didace	2	3	f
Megantic	Inverness	1	1	a, c
Portneuf	Cape Sante	1	1	c
	Deschambault	1	1	c
	Grondines	1	1	c
	Les Ecureils	2	1	c, f
	Pointe-aux-Trembles	3	3	c, g
	Portneuf	1	1	c
	St. Augustin	1	1	c
	St. Basile	1	1	c
	St. Gilbert	1	1	c
	Ste. Christine	2	1	c, f
	Ste. Jeanne de Neuville	1	1	c
Quebec	Quebec City	2	3	a, c

TABLE OF VISITS AND LECTURES—*Continued.*

Counties.	Localities.	Visits.	Lectures.	Letters of Reference.
	Province of Quebec—Con.			
Quebec	Quebec, (banlieue)	1	1	a
Richmond	Bromptonville	1	1	c
	St. Frs. Xavier de Brompton	1	1	c
	Windsor Mills	1	1	c
St. Hyacinthe	St. Hyacinthe	1	1	b
Shefford	North Stukely	1	1	c
	Racine or St. Theophile	1	1	c
	St. Joseph d'Ely	1	1	c
	St. Anne de Stukely	1	1	c, f
	Ste. Marie d'Ely	1	1	d, e
Temiscouata	Notre Dame du Lac	1	1	c
Terrebonne	Ste. Anne des Plaines	1	1	f
Two Mountains	La Trappe	2	3	a, g
	Ste. Monique	1	1	—
24	100	133	114	

Reference letters indicate:—

'*a*' Federal and provincial meetings.
'*b*' County and district meetings.
'*c*' Farmers' Clubs meetings.
'*d*' Parish meetings.
'*e*' English lectures.
'*f*' Factory inspections.
'*g*' Visits in colleges and schools.

The above given table shows that I have attended ten federal and provincial meetings, nine county and district meetings, fifty-nine farmers' clubs meetings, two parish meetings, that I have delivered twelve English lectures, that I have made forty-eight factory inspections and that I have delivered eight lectures in colleges and schools.

FEDERAL AND PROVINCIAL MEETINGS.

The first of the provincial meetings which I attended during the last twelve months was the annual convention of the Province of Quebec Agricultural Missionaries, held at Oka on July 11 and 12. I delivered before that convention a lecture on, 'Formation, Breeding, Care and Hygiene of the Dairy Herd,' illustrated with the magic lantern. The second meeting attended was a private one on August 28, at Quebec with Mr. W. H. Bunting, an Ontario fruit grower, making a general inquiry for the department into the condition of fruit growing in the Dominion. According to your instructions, I accompanied him during part of his tour through the province of Quebec. The third meeting was that of the Quebec Pomological Society, held on August 30 at Inverness, Megantic county. At that convention, which was the summer one of the society, I delivered one lecture on 'Wind-breaks and Quick Set Hedges,' one on 'Vegetables as judged at the Exhibition' and one on 'Periodical Invasions of Insect and Fungus Pests in Orchards.' The fourth provincial meeting was one held on August 31 at Quebec in the Quebec Provincial Exhibition grounds, where I delivered a lecture on 'Fruit Growing.' On December 5 at Macdonald College, I attended my fifth provincial meeting, being the winter meeting of the Quebec Pomological Society, before which I gave a lecture on 'A Recrudescence of Orchard Pests in Eastern Quebec.' On the 6th and 7th of the same month, I attended at Ottawa a conference of the Dominion Dairy Experts, where I

was called upon to reply on behalf of the Quebec experts to the address of welcome by the Honourable Minister of Agriculture. I attended on January 25 and 26 at Quebec the annual meeting of the Quebec Dairymen's Association before which I delivered a lecture on 'What Quebec has done for the Dairy Industry.' On February 14, 15 and 16 I attended the conference of the Fruit Growers of the Dominion, at Ottawa, representing there, as a delegate, the Quebec Pomological Society.

The last of the federal and provincial conventions which I attended during the year was that of the Quebec Society for the Protection of Plants, held at Macdonald College on March the 27th and before which I delivered a lecture on 'The New York Plum Scale.'

Besides these meetings, I also accepted an invitation to deliver two lectures before the students of the Oka Agricultural Institute on March 28.

COUNTY AND DISTRICT MEETINGS.

As already mentioned, I have attended nine county and district meetings. The first one was a meeting of the board of directors of the Kamouraska County Horticultural Society at St. Pacome on May 5. My subject at this meeting was 'Fruit Growing.' I attended another meeting of the same kind on July 28 at the same place.

I attended the three following county meetings while visiting various orchards with Mr. Bunting above mentioned at St. Roch des Aulnaies, Village des Aulnaies in L'Islet county and Ste. Anne de la Pocatiere in Kamouraska county on August 29. The sixth county meeting took place at St. Pacome, Kamouraska county, on September 28, on the occasion of the first horticultural exhibition of the Kamouraska County Horticultural Society. I there delivered a lecture on 'The New York Plum Scale,' which had just been discovered in the parish of St. Pacome.

On January 30, I attended a co-operative society convention of Chambly county, held at St. Bruno, and spoke on 'The Formation, Breeding, Care and Hygiene of the Dairy Herd,' illustrated with lantern slides. On March 12, I attended the annual meeting of the Kamouraska County Horticultural Society held at St. Pacome and discussed "The Possibilities of Fruit Growing in Kamouraska County.'

The last county and district meeting I attended was that of St. Hyacinthe, held on March 30 by the Cow Testing Association of the District of St. Hyacinthe and where I repeated, upon request, the lecture I delivered in January before the St. Bruno meeting.

FARMERS' INSTITUTE MEETINGS.

During February and March in company with Mr. J. N. Lemieux, I attended a series of twenty-two Farmers' Institute meetings in Beauce, Dorchester and St. Hyacinthe counties. They were special dairy meeetings and the following subjects were discussed, 'Improvement of Dairy Herds through Breeding,' 'Hygiene of the Stable,' 'Improvement of Dairy Herds through keeping Records of Production,' 'Production of Milk at a Minimum Cost,' and 'Payment of Milk according to the Fat.' All these lectures were illustrated with lantern slides.

These meetings were attended by an average of two hundred and eight farmers and amongst them two hundred and forty-nine have expressed their willingness to keep records and test the milk of 2,142 cows during the next season.

I beg to offer my most sincere thanks to the various parish priests of the parishes visited during this series of meetings for the help they have heartily given us in bringing their parishioners together.

LECTURES BEFORE FARMERS' CLUBS.

The meetings held by Mr. Lemieux and myself were under the auspices of the farmers' clubs of all the localities visited. Besides these twenty-two meetings, I delivered before such clubs, thirty-seven lectures, making in all fifty-nine meetings in the counties of Brome, Champlain, l'Islet, Portneuf, Richmond and Shefford.

CHEESE FACTORY INSPECTION.

In May, June and July I made forty-four factory inspections and delivered lectures to the patrons of those factories in the counties of Berthier, Chicoutimi, Lake St. John, l'Assomption, Maskinonge, Terrebonne and Two Mountains. This kind of work was undertaken as already described in previous reports.

VISITS IN SCHOOLS AND COLLEGES.

I visited this year the schools of Agricultural Household Science, one at Roberval, Lake St. John county, conducted by the Ursuline Sisters, one at Pointe-aux-Trembles, Portneuf county, conducted by the Sisters of La Congregation de Notre-Dame and one at Sutton, conducted by the Sisters of La Presentation. At the Ursuline Sisters' school, I addressed the students on 'The Part of Woman in Agriculture,' and I made a visit to the farm of the institution, in company with the sisters who had invited me specially to get information on the best method of cultivation to follow on their land, information that I have readily given them on the spot. At the other two schools, I gave my lecture on 'The Part of Woman in Agriculture.'

Besides these three schools, I visited the Oka Agricultural Institute, the Agricultural Orphans' Institute of Vauvant and the farm of the Reverend Trappist Fathers or silent monks of Mistassini.

OFFICE WORK.

I have had in my office during the last twelve months to perform about the same amount of work as during the preceding years. It has taken much of my time to answer my numerous correspondents, to prepare memoranda, lectures and papers for the agricultural press, for my own meetings and for various other purposes. I append here a list of these papers. As some of them were written in French, some in English and some in French and English, those in French are indicated by the letter 'F.', those in English by the letter 'E.', and those in French and English by the letters 'F. & E.'

Cleanliness in Factories.—'F.'
Lecture for Arbor Day.—'F.'
Whitewashing of Factories.—'F.'
A Few Notes on Potato Culture.—'F.'
The Island of Orleans Soft Refined Cheese.—'F.'
Report of the Assistant Dairy Commissioner, 1911-1912.—'F. & E.'
A Study in Knots.—'F.'
The Law of Minimum.—'F.'
A French-English Conversation.—'F.'
A Talk about Eggs.—'F.'
Some Odd Methods of Culture in the Province of Quebec.—'E.'
How to dispose of Curd kept from Previous Day.—'F.'
Notes on Wind Breaks and Quick Set Hedges.—'F. & E.'
Statistics concerning a few American Creameries.—'F.'
Domestic Economy, Mutton as Food.—'F.'
Dalen Milking Machine.—'F.'
'Epis glanes' (gleaned ears).—'F.'
Bibliography—Le Lait (Milk) by Mornoison.—'F.'
Catalejsic Fertilizers.—'F.'
The Biggest Cheese of the World.—'F.'
A Recrudescence of Orchard Pests in Eastern Quebec.—'F. & E.'
The Casein Test.—'F.'
What Quebec has done for Dairying.—'F.'
The New York Plum Scale.—'F. & E.'

Sinks and Racks in Cheese Factories.—'F.'
The Part of Race in Breeding.—'F.'
Three Centuries of Agriculture in Quebec.—'E.'
Notes on the Blooming Season of Fruit in Eastern Quebec.—'E.'

CLOSING REMARKS.

When last year I wrote the closing remarks of my twenty-first annual report, I said that the spirit of co-operation was spreading amongst our rural population. I may say that co-operation seems more and more to be the by-word of French farmers, especially in Quebec. In fact, there are now nineteen agricultural co-operative societies in that province. This, with the number of cow testing associations increasing all over, causes us to entertain great hopes for the future of dairying.

J. C. CHAPAIS,
Assistant Dairy Commissioner.

APPENDIX II.

REPORT OF W. W. MOORE, CHIEF, EXTENSION OF MARKETS DIVISION.

SIR,—I have the honour to present herewith the report of the Extension of Markets Division for the year ending March 31, 1912.

WORK OF THE DIVISION IN 1911-12.

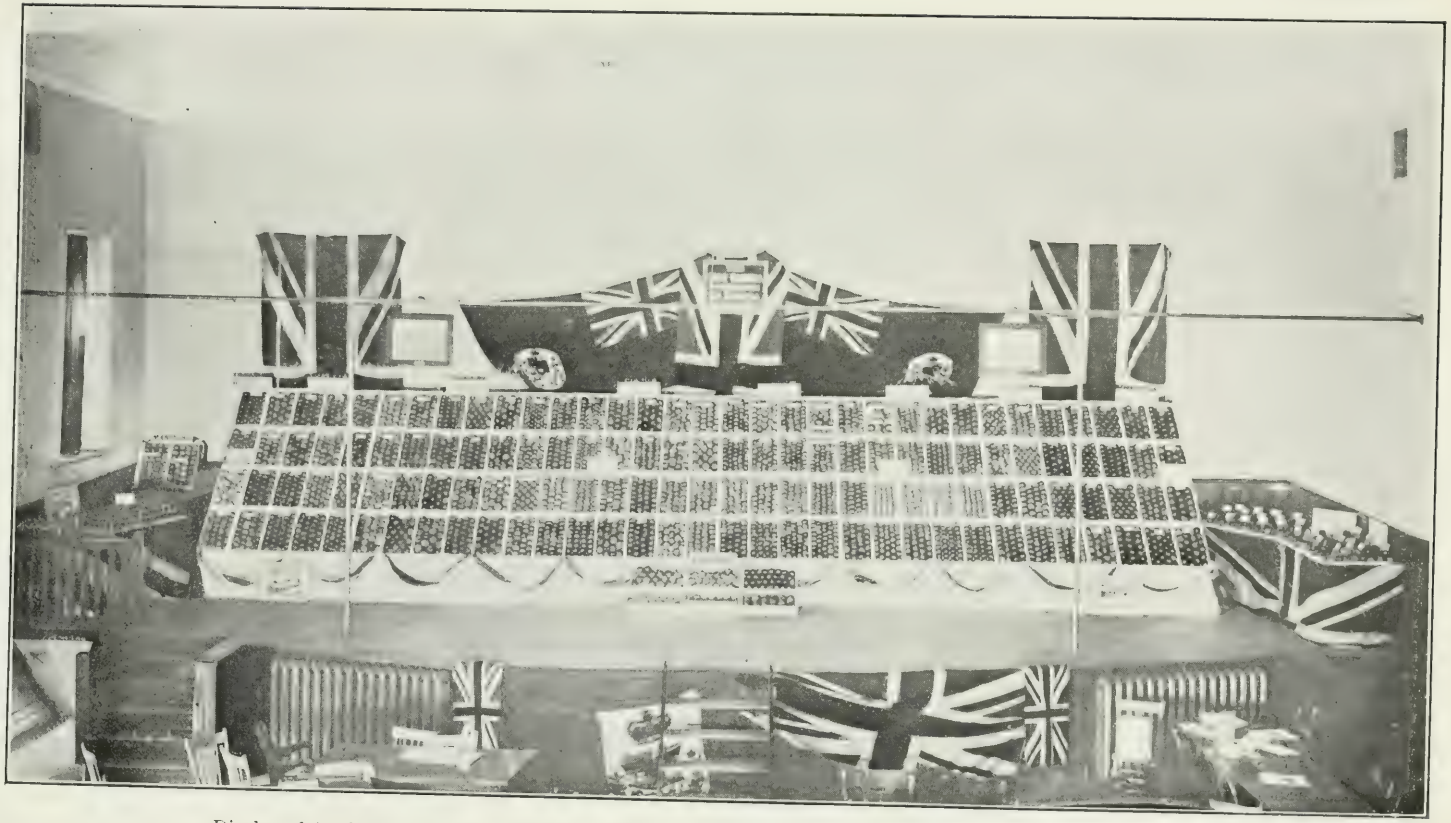
During the twelve months under review the activities of this division have been continued along lines similar to those followed in previous years. Cargo inspection has been carried on at Montreal, Quebec and Halifax in Canada, and at Liverpool, Manchester, London, Bristol and Glasgow in Great Britain. The special iced car services for the carriage of butter to Montreal and Toronto have been closely supervised and the interests of the shippers carefully protected In September a special collection of peaches was packed and forwarded to the Festival of Empire Exhibition, London, where it formed a part of the Canadian exhibit. The peaches opened up in perfect condition and their large size, attractive appearance and fine quality evoked much favourable comment. Our weekly compilation of comparative wholesale prices of farm and food products in Canadian and United States markets was continued throughout the year and price-statements covering a number of products will be included in this report.

During the year, 19 men have been employed in the outside service of this division—13 cargo and 6 refrigerator car inspectors—but only 8 of these were engaged the year round, the others working for terms of from five to seven months.

GROWING USEFULNESS OF THE THERMOGRAPH.

The placing of thermographs (self recording thermometers) along with perishable cargo in steamships loaded at Montreal, Quebec and Halifax, has grown to be a feature of our work. We have now over two hundred of these instruments divided into three groups, viz. those that will record for 35 days, for 14 days and for 7 days. Much the greater proportion belong to the second group as the bulk of our shipping is with Great Britain and fourteen days covers the voyage. The thirty-five day thermographs are used in ships sailing to South Africa and Australia and the seven day instruments in railway cars carrying fruit, butter, etc. In the past twelve months 666 records of

Delegates, visitors and officials, at the Third Dominion Conference of Fruit Growers. Ottawa February 14, 15 and 16, 1912.



Display of Apples at the Third Dominion Conference of Fruit Growers, Ottawa February, 14, 15 and 16, 1912.

temperature were obtained in ocean steamers, and 3,996 copies of these were made in this office for distribution to interested parties. This last year one of the pork packing companies in Ontario made it a point to notify this office every time they made a shipment of bacon for export in order to insure the placing of a thermograph along with their consignment in the ship. Copies of the records in which they were interested were regularly sent to this firm and they were thus supplied with exact information regarding the temperature at which their meat was carried during every hour of the voyage. This coming season we propose to use thermographs somewhat extensively in connection with rail shipments of fruit between producing points in British Columbia and the distributing centres in the prairie provinces.

MARKET GRADES AND THEIR INFLUENCE ON QUALITY.

The farmer in Canada to-day, whether engaged in dairying, fruit growing, stock raising or general farming, produces primarily for market and it is necessary, therefore, that he should give the most careful consideration to the marketing end of his business, otherwise he is unlikely to receive the fullest recompense for his skill and labour. This was not the case years ago when the country was sparsely settled, the farms but clearings surrounded by forests, and the methods and implements crude and primitive. In those days the farmer sowed and reaped and tended his stock mainly for the purpose of providing for the needs of his household, but in the years that have intervened the conditions under which farming has been carried on have been gradually changing and the prices of agricultural products have undergone many fluctuations. All the time, however, owing to the tremendous improvement in transportation facilities and in means of communication, prices of farm products have been growing less local in character and more subject to influences which are entirely outside the control of the individual producer.

One effect of the pressure of international competition has been to make prices more uniform throughout the world's markets and, at the same time, to widen the range of prices through the fixing of many different grades of quality. These grades, or standards, represent the skill and care that have been exercised in the production and packing of the product, or its preparation for market in one form or another, and it is by means of these grades that intelligence and care on the part of the producer is rewarded. It is therefore true that discriminatory grades, if adhered to by buyers and sellers, are a good thing for those who produce fine products and understand how to prepare them attractively for market. If all the butter, cheese, eggs, &c., marketed in Canada had to be sold at first hand strictly according to quality, condition and appearance, it would soon prove effective in raising the average level of quality and bring about an improvement in condition and appearance as well. So long, however, as country buyers continue to lump good and bad together and pay an average price therefor, it will be difficult to increase to any marked extent the production of the finest grades. If it could be established, however, that products would be bought strictly on their merits and that prices would be graded according to quality, condition and finish, a vast improvement would quickly take place.

COMPARATIVE PRICES IN CANADIAN AND UNITED STATES MARKETS.

In last year's report of this Division statements were included showing wholesale quotations for certain products in the leading markets in Canada and the United States, and this year I present a similar comparison for dairy produce, eggs, live stock, &c., for each week of the year under review.

Very few people realize how difficult it is to compile a statement that will show with absolute fairness the market price of a particular product on the same day in a number of different markets. In the first place it is essential that the same grade of quality be taken as a standard for each market; but when an international comparison

is attempted it at once becomes evident that each country has its own peculiar classifications and grades and unless the statistician is well posted regarding the grades in use in the markets concerned and just what they call for, an accurate comparative quotation will hardly be obtained. Not only is there variation in the grades and selling conditions in different countries, but also in the several markets in any one country. For instance, in the Toronto market live hogs may be bought either 'F.O.B. Country Points,' or 'Fed and Watered,' Toronto, or 'Weighed off Cars,' Toronto. On the other hand in the Montreal and Winnipeg markets the custom is to buy hogs on a 'weighed off cars' basis. In Chicago and in other large markets in the United States live stock quotations as a rule are on a 'fed and watered' basis. In Toronto there is a difference of from 50 cents to 65 cents per hunderweight between a quotation 'F.O.B. country points' and one 'weighed off cars,' and at least 25 cents per hundredweight between an 'F.O.B.' and a 'fed and watered' price.

In the New York market, quotations are usually obtainable on ten grades of creamery butter, three grades of 'State dairy' and four grades of 'Process,' to say nothing of 'Factory' and 'Packing stock.' There is no fixed rule but quotations for each particular grade are supposed to be based upon actual sales to jobbers. Supply and demand determine the price relation of one grade to another and at times the range is extremely narrow. It is generally understood that butter scoring 92 points and over is classed as 'Specials' and 90 to 91 points as 'Extras.'* Then follows 'First,' 'Seconds' and 'Thirds.' The remaining five grades are the same as the foregoing except that they apply to 'held' or stored butter. In Montreal, quotations are generally restricted to two grades of creamery and two grades of dairy. In the latter market wholesale prices of butter as published mean the price quoted to the jobber or large retailer by the big wholesale dealer or exporter who buys from the creamery direct. In Toronto, on the other hand, quotations published in the various papers as a rule refer to the price paid to the creamery men and country merchants by the wholesale dealers in the city Here then we have two methods of reporting prices which preclude an equitable comparison, yet this fact is scarcely ever taken into account when Montreal and Toronto prices are compared.

In addition to the matter of grades and market terms there is the difficulty of getting quotations for the same day in the week in some seven or eight widely separated centres and the risk that a published quotation for one market may mean the top price realized during the day, while in another the average of the day's sales may be intended without, however, it being so stated in either case. Under present conditions in this country it is a hard proposition to prepare for daily or weekly publication a market report that will be accurate in every department and fairly reflect the feel and trend of the market on the day covered by the report. It can be done but it takes a level-headed, capable and experienced man to do it, and in view of the inherent difficulties it is not surprising that the market pages, in some of the publications in Canada, are useless because of inexperienced reporters and the lack of a careful revision before each issue goes to press, the same figures standing for weeks at a time although the market may have fluctuated widely in the meantime.

A standardization of grades in the leading markets of this country for butter, eggs, dressed poultry and live stock is badly needed and if it could be brought about it would simplify the buying and selling of these products and remove the ambiguity which now more or less surrounds many of the quotations which appear in the market columns of the press.

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* Since this report was written the New York Mercantile Exchange has issued new rules governing the grading of butter under which the term 'Specials' has been eliminated and 'Extras' has taken its place. According to the new rules 'Extras' are divided into class A scoring 93 points or higher, class B 91 points or higher; Firsts, class A 88 to 92 points, class B 86 to 90 points; Second, class A 83 to 87 points, class B 81 to 85 points; Thirds, class A 77 to 82 points, class B 75 to 80 points.

Wholesale Prices of Butter Each Week from April 5, 1911, to March 27, 1912.

(From Boston Chamber of Commerce, "Producers' Price Current," "Daily Trade Bulletin," "Canadian Farm" and "Journal of Commerce.")

Week.	Boston.	New York.	Chicago.	Halifax.	Montreal.	Toronto.	Winnipeg.
	"Extras."	"Extras."	"Extras."	"Creamery Solids."	"Creamery Solids."	"Creamery Solids."	"Creamery Solids."
1911.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
April 5..	22 - ..	21 - ..	21 - ..	22 - 23	25 - 25½	23 - 24	24 - 26
" 12..	.....	20½ - ..	21 - ..	22 - 23	25 - 25½	24 - 25	24 - 26
" 19..	22½ - ..	22 - ..	21 - ..	22 - 23	23½ - 24	23 - 24	23 - 24
" 26..	22 - ..	22 - ..	21 - ..	22 - 23	.. - 22	23 - 24	27 - 28
May 3..	22 - ..	21½ - ..	21 - ..	22 - 23	20½ - 21	23 - 24	27 - 28
" 10..	22½ - ..	22 - ..	21 - ..	22 - 23	21 - 22	23 - 24	27 - 28
" 17..	.....	21 - ..	21 - ..	23 - 26	.. - 22	22 - 23	27 - 28
" 24..	23 - ..	22 - ..	21 - ..	23 - 26	21½ - 22	21 - 22	23½ - 24½
" 31..	24½ - .	22½ - 23	23 - ..	23 - 26	21 - 21½	21 - 22	20 - 25
June 7..	23½ - ..	22 - 22½	21 - ..	23 - 24	.. - 21½	21 - 22	20 - 25
" 14..	24 - ..	23 - ..	21 - ..	23 - 24	22 - 22½	21 - 21½	20 - 21
" 21..	.....	23 - ..	22 - ..	20 - 22	22 - 22½	20 - 21½	20 - 21
" 28..	25 - ..	24 - ..	23 - ..	20 - 25	22 - 22½	21 - 22	20 - 21
July 5..	25½ - ..	24 - ..	23 - ..	20 - 25	22¼ - 22½	21 - 22	20 - 21
" 12..	25½ - ..	24 - 24½	24 - ..	20 - 25	21½ - 22	21 - 22	20 - 21
" 19..	26 - ..	25 - ..	24 - ..	20 - 25	22½ - 23¼	21 - 22	19 - 20
" 26..	.. - 27	26 - ..	25 - ..	20 - 25	22¾ - 23	21 - 22	19 - 20
August 2..	27 - ..	26 - ..	26 - ..	20 - 25	23½ - 23¾	22 - 23	19 - 20
" 9..	.. - 27	26 - ..	26 - ..	20 - 25	23½ - 24	22 - 23	19 - 20
" 16..	.. - 27	26 - ..	25 - ..	20 - 25	24¼ - 24½	22 - 23	19 - 20
" 23..	27½ - 28	27 - ..	25 - ..	20 - 25	24¼ - 24½	23 - 24	19 - 20
" 30..	27 - ..	.. - 26	25 - ..	20 - 25	25¾ - 26	23 - 24	19 - 20
Sept. 6..	27 - ..	26 - 26½	25 - ..	20 - 25	26 - 26½	23 - 24	19 - 20
" 13..	27½ - ..	26 - 26½	26 - ..	20 - 25	26 - 26½	23 - 24	19 - 20
" 20..	.. - 28	26 - 26½	26 - ..	20 - 25	25¾ - 26	23 - 24	19 - 20
" 27..	28½ - ..	27½ - 28	26½ - ..	20 - 25	25¾ - 26¼	23 - 24	19 - 20
October 4..	29½ - ..	29 - ..	27½ - ..	20 - 25	.. - 26⅝	23 - 24	19 - 20
" 11..	30½ - ..	31 - ..	29 - ..	20 - 25	26½ - 27	23 - 24	19 - 20
" 18..	.. - 30½	30 - ..	29 - ..	20 - 25	.. - 27½	23 - 24	19 - 20
" 25..	31 - ..	31 - 31½	29½ - ..	20 - 25	27¼ - 27½	24 - 25	19 - 20
November 1..	31½ - ..	32 - 32½	31 - ..	25 - 26¼	27 - 27½	24 - 25	22 - 24½
" 8..	31½ - ..	32½ - ..	31 - ..	24 - 24½	27 - 27¼	26 - 26½	22 - 25
" 15..	.. - 32½	33½ - ..	32 - ..	27½ - 28	28 - 28½	26 - 27	25 - 26½
" 22..	33 - ..	35 - ..	33 - ..	27½ - 28	28½ - 29	27 - 29	25 - 26½
" 29..	34 - ..	36½ - ..	36 - ..	27½ - 28	30 - 30½	28 - 30	28 - 30
December 6..	35 - ..	38 - ..	37 - ..	27½ - 28	30½ - 31½	28 - 30	28 - 31
" 13.	34 - ..	34 - ..	35 - ..	27½ - 28	31 - 31½	28 - 29	28 - 31
" 20..	35 - ..	38 - ..	35 - ..	27½ - 28	30½ - 31½	29 - 30	28 - 30
" 27..	.. - 36	37 - ..	36 - ..	27½ - 28	31½ - 32	29 - 30	28 - 30
1912.							
January 3..	36 - ..	36½ - 37	36 - ..	27½ - 28	31½ - 32½	29 - 30	29 - 31
" 10..	36½ - ..	38½ - 39	36 - ..	27½ - 28	31 - 31½	30 - 32	30 - 32
" 17..	38 - ..	40½ - 41	40 - ..	27½ - 28	32 - 32½	30 - 32	30 - 32
" 24..	. - 38	37 - ..	36 - ..	27½ - 28	32 - 33	27 - 29	30 - 32
" 31..	36 - ..	31 - 34	36 - ..	27½ - 28	33 - 34	30 - 32	30 - 32
February 7..	34½ - ..	31½ - ..	32 - ..	27½ - 28	35 - 36	32 - 34	30 - 32
" 14..	.. - 34	31½ - ..	30 - ..	27½ - 28	33 - 34	32 - 34	30 - 32
" 21..	30 - ..	.. - 28½	27 - ..	27½ - 28	33 - 34	32 - 34	30 - 33
" 28..	31½ - ..	.. - 30½	28 - ..	27½ - 28	33 - 34	34 - 35	30 - 33
March 6..	32 - ..	.. - 31	30 - ..	27½ - 28	33 - 34	34 - 35	30 - 33
" 13..	31½ - ..	29 - ..	29 - ..	27½ - 28	33 - 34	34 - 35	30 - 33
" 20..	32 - ..	31 - ..	29 - ..	27½ - 28	33½ - 34	33 - 34	33 - 34
" 27..	33 - ..	31½ - ..	30 - ..	27½ - 28	34½ - 35	33 - 34	33 - 34

Wholesale Prices of Cheese, Each Week from April 5, 1911, to March 27, 1912.

(From Boston Chamber of Commerce, "Producers' Price Current," "Daily Trade Bulletin" and "The Canadian Farm.")

Week.	Boston.	New York.	Chicago.	Halifax.	Montreal.	Toronto.	Winnipeg.
	"N.Y. Twins."	Whole milk "Fancy Coloured."	"Twins."	"Westerns"	"Westerns"	"Westerns"	"Westerns"
1911.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
April 5....	12½–..	13¼–14	12 –..	12 –13½	12¼–12½	14 –14¼	12 –15
" 12....	.....	13 –13½	12 –..	12 –13½	11½–12	14 –14¼	12 –14½
" 19....	.....	13¼–13½	12 –..	12 –13½	11½–12	14 –14¼	12 –14½
" 26....	10½–11¼	13½–..	12 –..	12 –13½	11½–11⅝	11½–12	12 –14½
May 3....	11½–..	13½–..	10½–..	12 - 13½	11½–11¾	11½-12	12 –14½
" 10....	11 –11½	13½-..	10½–..	12 - 13½	11½–11⅝	11½-12	12 –15
" 17....	.....	13½-..	10½–..	13½–14	.. –11⅝	11½-12	12 –15
" 24....	11 - 11½	13 –13½	10½–..	13½-14	11½–11⅝	11½–12	13 –15
" 31....	11 –..	13 –13½	10 –..	13½-14	10⅝–10¾	11½-12	13 –15
June 7....	.....	13 –13½	10 –..	13½–14	11¼–11¼	11½-12	13 –15
" 14....	11 –11½	13 –13½	10 –..	13½-14	11¼–11½	11½–12	13 –14
" 21....	.....	13 –13½	10 –..	13½-14	11⅝-11½	11½-12	13 –14
" 28....	12 –12½	11¾–..	10 –10¼	12½-13	11⅜–11½	12 –12½	13 –14
July 5....	12½–..	11¾–..	10 –10¼	12½-13	11¼–11⅜	12 –12¼	13 –14
" 12....	12½-13	11¾–..	10½-11	12½-13	11¼–11⅜	12 –12½	13 –14
" 19....	12½-13	11¾–..	10½–11	12½-13	11½–11¾	12 –12½	13 –14
" 26....	12½-13	11¾–..	11 –11½	12½-13	11⅝–12¼	12½–12¾	13 –14
Aug. 2....	13 –..	12 –..	11 –11½	12½-13	12¼–12½	12¾-13	13 –14
" 9....	13¼–..	12¼–..	11 –11½	12½-13	12½–12¾	12¾-13	13 –14
" 16....	13 –13¼	12¼–..	11 –11½	12½–13½	12⅝–12¾	13¼–13½	13 –14
" 23....	13¼–13½	12¾–..	11 –11½	12½-13	12¾-13⅛	13½–14	13 –14
" 30....	13½–..	13 –13¼	11 –11½	13 –13¼	13⅜-13⅝	14 –14¼	13 –14
Sept. 6....	13½–..	13 –13¼	11 –11½	13 –13¼	13½–13¾	13¾–14	13 –14
" 13....	13½–14	13¼–..	11 –11½	13 –13¼	14 –14½	14½–15	13 –14
" 20....	14¼–14½	13¾–..	11 –11½	13 –13¼	.. –15	15¼–15½	13 –14
" 27....	14¾–..	14¼–14½	11 –11½	13 –13½	15¼–15½	15¼–15½	13 –14¼
Oct. 4....	15 –..	14¼–14½	12 –12½	13 - 13½	14½–14¾	15¼–15½	13 –14¼
" 11....	15 –15¼	14¼–..	13 –..	14 –14¾	14½–14⅝	15¼–15½	13 –14¼
" 18....	15 –..	14 –..	13 –..	14 –14¾	13¾-14	15¼–15½	13 –14¼
" 25....	.. –15	14¼–..	13½–..	14 –14¾	13¾-14¼	14¾–15	13 –14¼
Nov. 1....	15 –..	14¾–..	13½–..	15 - 15½	13¾-14⅛	14¾–15	13 –14¼
" 8....	15 –..	14¾–..	13½–..	15 - 15½	14 –14½	14¾–15	13 –14¼
" 15....	15 –15½	15 –15¼	13½–14	15 15½	14¼–14¾	14¾–15	13 –14¼
" 22....	15½–..	15 –15¼	14 –..	15 –15½	14¼–14¾	14 –14½	13 –14¼
" 29....	15½–15¾	15¼–15¼	14 –..	15 –15½	14 –14¾	14¼–14½	15¼ - 15¾
Dec. 6....	15¾–16	15½–15¾	14½–..	15 –15½	14½–14¾	14¼–14½	15¼–15¾
" 13....	15¾–16	15¾–..	14½–..	15 –15½	14½–14¾	14¼–14½	15¼–15¾
" 20....	16 –..	16¾–..	14½–..	15 –15½	14½–14⅝	14¼–14½	15¼–15¾
" 27....	16 –16½	16 –..	15 –15½	15 –15½	14¾–15	15½–15¾	15¼–15¾
1912.							
Jan. 3....	16 –16½	16 –16½	15 –15½	15 –15½	14⅞–15	15¾–16¼	15¼–15¾
" 10....	16½–16¾	16¼–16½	15 –15½	15 –15½	14⅞–15⅝	15¾–16¼	16¼–16¾
" 17....	16¾–..	16½–16¾	15 –15½	15 –15½	15¼–15¼	16 –16¾	16¼–16¾
" 24....	17 –..	16¾–..	15 –15½	15 –15½	15¼–15¾	16 –16¾	16¼–16¾
" 31....	17 –17½	17 –..	16½–16¾	15 –15½	15¼–15½	16 –16¾	16¼–16¾
Feb. 7....	17½–18	16¾–..	16½–16¾	15 –15½	15¼–15½	16 –16¾	16¼–16¾
" 14....	..–18	17 –..	17 –..	15 –15½	15¼–15½	16 –16¾	16¼–16¾
" 21....	18 –..	17¼–..	17 –..	15 –15½	15¼–15½	16 –16¾	16¼–16¾
" 28....	18 –..	17¼–17½	17 –..	15 –15½	15¼–15½	16¾–17	16 –16¾
Mar. 6....	18 –..	.. –17¾	17 –..	15 –15½	15¼–15½	16¾–17	16 –16¾
" 13....	18 –18½	18¼–..	17 –..	15 –15½	15¼–15⅛	16¾–17	16 –16¾
" 20....	18½– .	18½–18¾	17 –..	15 –15½	15¼–15½	16¾–17	18 –..
" 27....	19 –..	18½–18¾	18 –..	15 –15½	15¼–15½	16¾–17	18 –..

NOTE:—Canadian quotations are for large cheese, small cheese would be about ½c. a pound more.

Wholesale Prices of Eggs Each Week from April 5, 1911, to March 27, 1912.

(From Boston Chamber of Commerce, "Producers' Price-Current," "Daily Trade Bulletin" and "The Canadian Farm.")

Week.	Boston.	New York.	Chicago.	Halifax.	Montreal.	Toronto.	Winnipeg.
	"Western Firsts."	"Firsts" Fresh Gathered.	"Firsts."	"Straight Gathered."	"Straight Gathered."	"Straight Gathered"	"Straight Gathered."
1911.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
April 5....	.....	16½ - ..	14 - ..	17 - 19	17 - 18	17 - 18	16 - 18
" 12....	.. - 18	16¾ - 17	15 - ..	17 - 19	17 - 18	17 - 18	16 - 18
" 19....	.....	16¾ - 17	14½ - ..	17 - 19	16 - 17	15 - 16	16 - 17
" 26....	.. - 18½	17½ - 18	15½ - ..	17 - 19	16 - 17	15 - 16	15 - 16
May 3....	18 - 18½	17 - 17½	15½ - ..	17 - 19	16 - 17	15 - 16	15 - 16
" 10....	17½ - 18	17½ - 18	15½ - ..	17 - 19	16 - 17	16 - 17	15 - 16
" 17....	.....	16½ - 17	15½ - ..	19 - 20	16 - 17	16 - 17	15 - 16
" 24....	17 - ..	16 - 16½	14½ - ..	19 - 20	16 - 17	16 - 17	15 - 16
" 31....	15 - 16	16 - ..	14 - ..	19 - 20	16 - 17	16 - 17	15 - 16
June 7....	15 - ..	14½ - 15	13 - ..	16 - 17	17½ - 18	16 18	15 - 16
" 14....	15 - 16	14½ - 15	13 - ..	16 - 17	17½ - 18	16 - 18	15 - 16
" 21....	.....	14½ - 15	13 - ..	16 - 17	17½ - 18	16 - 17	15 - 16
" 28 ...	16 - 16½	15 - 16	13 - ..	16 - 17	17½ - 18	16 - 17	15 - 16
July 5....	17 - 18	15 - 16	14½ - ..	16 - 17	17½ - 18	16 - 17	15 - 16
" 12....	17 - 18	15 - 16	14½ - ..	16 - 17	17½ - 18	16 - 17	15 - 16
" 19....	17 - 18	17 - 18	14½ - ..	17 - 18	17½ - 18	18 - 19	15 - 16
" 26....	19 - ..	18 - 19	15 - ..	17 - 18	17½ 18	18 - 19	15 - 16
Aug. 2....	18 - 19	17 - 18	15½ - ..	15 - 17	16 - 17	16 - 17	.....
" 9....	18 - 19	17 - 18	16 - ..	15 - 17	16 - 17	16 - 18	.....
" 16....	17 - 18	17½ - 18½	15 - ..	15 - 17	16 - 17½	16 - 18	.....
" 23....	17 - 18	16½ - 17½	15½ - ..	16 - 18	16 - 17½	16 - 18	.....
" 30....	17 - 18	17 - 18	16 - ..	16 - 18	17 - 18	16 - 18	.....
Sept. 6....	18 - 19	19 - 20	17 - ..	16 - 18	17 - 18	19 - 20	15 - 16
" 13....	20 - ..	21 - 22	18 - ..	16 - 18	17 - 18	19 - 20	16 - 17
" 20....	21 - ..	21 - 22	19 - ..	16 - 18	17 - 18	20 - 21	16 - 17
" 27....	21 - 22	20 - 22	19 - ..	16 - 18	18 - 19	20 - 21	17 - 18
Oct. 4 ...	22 - 23	21 - 23	19 - ..	16 - 18	19 - 20½	21 - 22	17 - 18
" 11 ...	23 - 24	23 - 25	20 - ..	23 - ..	19 - 20½	21 - 22	17 - 18
" 18....	23 - 25	23 - 25	21 - ..	23 - ..	19 - 20½	21 - 22	17 - 18
" 25....	23 - 25	23 - 25	21 - ..	23 - ..	19 - 21	22 - 23	17 - 18
Nov. 1....	24 - 26	27 - 29	23 - ..	23 - ..	21 - 22¼	22 - 23	17 - 19
" 8....	26 - 28	30 - 32	25 - 27	23 - ..	22 - 23	22 - 23	20 - 24
" 15....	26 - 28	31 - 33	26 - 28	23 - ..	23 - 25	22 - 23	20 - 24
" 22.. .	28 - 30	33 - 35	27 - 29	23 - ..	23 - 24	22 - 23	20 - 24
" 29....	28 - 30	33 - 36	28 - 30	.. - 30	23 - 24	22 - 23	22 - 24
Dec. 6....	32 - 34	36 - 39	28 - 30	25 - 26	23 - 24	24 - 25	22 - 25
" 13....	32 - 34	31 - 33	28 - 30	25 - 26	24 - 25	24 - 25	22 - 25
" 20....	32 - 34	39 - 40	28 - 31	25 - 26	24 - 25	25 - 26	27 - 28
" 27....	30 - 31	31 - 32	26 - 27	25 - 26	24 - 25	25 - 26	27 - 28
1912.							
Jan. 3....	30 - ..	30½ - 31	29 - 30	25 - 26	24 - 25	26 - 27	27 - 28
" 10....	31 - ..	.. - 34	33 - ..	25 - 26	24 - 25	26 - 27	28 - 30
" 17....	.. - 32	32½ - 33	31 - 31½	25 - 26	25 - 26	26 - 27	26 - 27
" 24....	.. - 32	33 - 34	32 - ..	25 - 26	26 - 27	26 - 27	26 - 27
" 31....	37 - 38	38 - 39	36 - ..	25 - 26	26 - 27	26 - 27	29 - 30
Feb. 7....	37 - 38	38 - 39	32 - ..	25 - 26	26 - 27	30 - 35	29 - 30
" 14....	37 - ..	.. - 38	31 - ..	25 - 26	27 - 28	30 - 35	29 - 30
" 21....	.. - 35	.. - 36	33 - ..	25 - 26	27 - 28	30 - 35	29 - 30
" 28....	32 - ..	.. - 30½	28 - ..	25 - 26	27 - 28	30 - 35	29 - 30
March 6....	.. - 24	28 - ..	19¼ - 19½	25 - 26	27 - 28	....	....29 - 30
" 13....	21½ - ..	.. - 21	19¾ - ..	25 - 26	.....	... .	29 - 30
" 20....	21 - 22½	21 - 21½	20 - ..	25 - 26	.....	.....	.....
" 27....	22½ - 23	22¾ - 23½	20½ - 20¾	25 - 26	.....	.....	.....

Wholesale Prices of Dressed Poultry each week from April 5, 1911, to March 27, 1912.

(From Boston Chamber of Commerce, "Producers' Price Current," "Daily Trade Bulletin" and "Canadian Farm.")

Week.	Boston.	New York.	Chicago.	Halifax.	Montreal.	Toronto.	Winnipeg.
	Dry Packed. "Common to Good."	Fowl, "Western Scalded" (Average).	Fowl, Scalded. "Good to Choice."	"Old Fowl."	"Old Fowl."	"Old Fowl."	"Old Fowl."
1911.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
April 5 ...	14 -16	16½-..	13 -14	9 -10	9 -12	14 -16	16 -17
" 12 ...	15 -16	16½-..	13 -14	9 -10	9 -12	14 -16	16 -17
" 19....	15 -16	15½-..	13 -14	9 -10	9 -12	14 -16	16 -17
" 26 ...	15 -16	14 -..	13 -14	9 -10	9 -12	10 -11	15 -15½
May 3....	15 -..	14 -..	13 -14	9 -13	9 -12	10 -11	15 -15½
" 10....	15 -..	14 -14½	13 -14	9 -13	9 -12	10 -11	15 -15½
" 17....	15 -..	.. -14	13 -14	12 -15	12 -14	14 -16	15 -15½
" 24....	15 -..	.. -14	12 -13	12 -15	12 -14	14 -16	15 -15½
" 31....	15 -..	12½-13	12 -13	12 -15	12 -14	14 -16	15 -15½
June 7....	15 -..	12½-13	12 -13	12 -15	12 -14	14 -16	15 -15½
" 14....	15 -..	13 -13½	12 -13	12 -15	12 -14	14 -16	8 -10
" 21....	15 -..	13½-..	12 -13	12 -15	12 -14	14 -16	8 -10
" 28 ...	15 -..	14 -14½	11 -11½	12 -15	12 -14	11 -12	8 -10
July 5 ...	15 -..	14 -14½	11 -11½	12 -15	12 -14	14 -15	8 -10
" 12....	15 -..	14 -14½	.. -12½	12 -15	12 -14	14 -15	11 -12
" 19....	15 -..	14½-15	.. -13	12 -15	12 -14	14 -15	11 -12
" 26....	15 -..	14 -14½	12 -12½	12 -15	12 -14	14 -15	10 -11
Aug. 2....	14 -15	13 -13½	.. -12½	12 -15	12 -14	13 -15	10 -11
" 9....	14 -15	.. -14	11½-12	12 -15	12 -14	13 -15	10 -12
" 16....	14 -15	.. -14	13 -..	12 -15	12 -14	13 -15	10 -12
" 23....	15 -16	.. -16	13 -13½	12 -15	12 -14	10 -12	10 -12
" 30....	15 -16	14 -14½	13 -..	12 -15	12 -14	10 -12	10 -12
Sept. 6....	14 -15	.. -15½	.. -12½	12 -15	12 -14	10 -12	10 -12
" 13....	14 -15	.. -15	12½-13	12 -15	12 -14	10 -12	10 -12
" 20....	14 -15	14 -..	12½-..	12 -15	12 -14	10 -12	10 -12
" 27....	14 -15	13½-14	11½-12	12 -15	12 -14	10 -12	10 -11
Oct. 4....	14 -15	13½-14	11 -11½	12 -15	12 -14	10 -12	10 -11
" 11....	14 -15	14 -14½	11½-12	12 -15	11 -13	8 -10	11 -12½
" 18....	13 -14	12½-13	9 -9½	12 -15	11 -13	8 -9½	11 -12½
" 25....	12 -13	11 -12½	9½-10	12 -15	11 -13	8 -9½	9½-..
Nov. 1....	12 -13	12 -12½	9½-10	12 -15	9 -10	7 -8	9½-..
" 8....	12 -13	12½-13	9 -.	9 -12	9 -10	7 -8	9½-..
" 15....	12 -13	.. -12	9 -9½	9 -12	9 -10	7 -8	9 ..
" 22 ...	12 -13	.. -11	8½-9	9 -12	7 -10	7 -8	9 -..
" 29...	12 -13	.. -11	8½-9	9 -12	7 -10	7 -8	9 -..
Dec. 6 ..	12 -13	10 -11	8½-9	9 -12	7 -10	6 -7	9 -..
" 13....	11 -12	10 -11	10 -..	9 -12	9 -10	5 -6	9 -..
" 20....	11 -12	11 -11½	10 -..	9 -12	9 -10	5 -6	9 -..
" 27 ...	11 -12	12 -12½	10 -..	9 -12	9 -10	5 -6	9 -..
1912.							
Jan 3....	11 -12	12 -12½	11 -12	9 -12	9 -10	7 -8	9 -..
" 10 ...	12 -13	15 -15½	13 -14	8 -12	8 -9	7 -8	9 -..
" 17....	13 -16	.. -15½	13 -..	8 -12	8 -9	8 -12	9 -..
" 24....	13 -16	.. -15	12 -..	8 -12	10 -11	10 -12	9 -..
" 31...	13 -16	.. -15	12½-13	8 -12	10 -11	10 -12	9 -..
Feb. 7....	13 -16	.. -15	13½-14	8 -12	10 -11	10 -12	12½-..
" 14....	13 -16	.. -15	13½-14	8 -12	8 -10	7 -9	12½-..
" 21....	13 -16	.. -15	.. -13	8 -12	8 -10	7 -9	12½-..
" 28 ...	13 -16	.. -15	.. -14	8 -12	8 -10	7 -16	12½-..
Mar 6....	14 -16	.. -15½	14 -15	8 -12	8 -10	7 -16	12½-..
" 13....	14 -16	.. -16	14½-15	8 -12	8 -10	8 -10	12½-..
" 20....	14 -16	.. -16	14½-15	8 -12	8 -10	8 -10	12½-..
" 27....	14 -16	.. -16	14 -15	8 -12	8 -10	8 -10	12½-..

Wholesale Prices of Breakfast Bacon each week from April 5, 1911, to March 27, 1912.

(From "Canadian Farm", "Journal of Commerce", "National Provisioner" and the London "Grocer".)

Date.	Toronto.	Montreal.	Chicago.	New York.	London, England.
	Breakfast Bacon.	Breakfast Bacon.	Breakfast Bacon.	Breakfast Bacon.	Canadian Bacon Leanest (Landed).
1911.	Cts.	Cts.	Cts.	Cts.	Cts.
April 5	15½ - 17½	14½ - 15	17¼ - 19	15 - 16	12·3 - 13·0
" 12	15½ - 17½	14½ - 15	16 - 19	15 - 16	12·3 - 13·0
" 19	15½ - 17½	14½ - 15	16 - 19	16 - 17	12·3 - 13·0
" 26	15½ - 17½	13½ - 14½	16 - 19	16 - 17	12·1 - 13·0
May 3	15½ - 17½	13½ - 14½	16 - 19	15½ - 16½	10·8 - 12·1
" 10	15½ - 17½	13½ - 14½	16 - 19	15½ - 16½	10·8 - 12·1
" 17	15½ - 17½	13 - 14	16 - 19	15½ - 16½	11·0 - 12·1
" 24	15½ - 17½	13 - 14	16 - 19	15½ - 16½	11·9 - 12·6
" 31	15½ - 17½	13 - 14	16 - 19	.. - 16½	12·3 - 13·0
June 7	15½ - 17	13 - 14	16 - 19	.. - 16½	13·4 - 13·9
" 14	15½ - 17½	15 - 16	16 - 19	.. - 16½	14·1 - 14·5
" 21	15½ - 17½	15 - 16	16 - 19	.. - 17	13·9 - 14·5
" 28	16 - 18	16 - 17	16 - 19	.. - 17	13·2 - 14·1
July 5	16 - 18	16 - 17	17 - 18	. - 17	13·9 - 14·1
" 12	16 - 18	16 - 17	17 - 18	.. - 17	13·9 - 14·1
" 19	16 - 18	17 - 18	17 - 18	.. - 17½	13·9 - 14·1
" 26	16 - 18	17 - 18	17 - 18	.. - 17½	13·0 - 13·6
Aug. 2	16 - 18	17 - 18	16½ - 17½	.. - 17½	12·8 - 13·6
" 9	16 - 18	17 - 18	16½ - 17½	.. - 17½	.....
" 16	16 - 18	17 - 18	16½ - 17½	.. - 18	.....
" 23	16 - 18	17 - 18	17 - 18	.. - 18	15·0 - 15·4
" 30	16 - 18	17 - 18	17 - 18	.. - 18	13·9 - 14·5
Sept. 6	17 - 18	17 - 18	17 - 17½	.. - 18	13·6 - 14·5
" 13	17 - 18	17 - 18	17 - 17½	.. - 17½	13·4 - 14·5
" 20	16 - 17	17 - 18	16½ - 17	.. - 17	13·2 - 14·1
" 27	16 - 17	17 - 18	16½ - 17	.. - 17	13·2 - 14·1
Oct. 4	16 - 17	17 - 18	16½ - 17	.. - 17	12·6 - 13·2
" 11	16 - 17	17 - 18	16½ - 17	.. - 16	12·1 - 12·8
" 18	16 - 17	14 - 14½	15½ - 16½	.. - 16	11·5 - 12·1
" 25	16 - 17	14 - 14½	15½ - 16½	.. - 16	11·3 - 11·7
Nov. 1	16 - 17	14 - 14½	16 - 17	.. - 14½	11·7 - 12·3
" 8	16 - 17	14 - 14½	15 - 16	.. - 14½	12·3 - 13·0
" 15	15 - 16	14 - 14½	15 - 16	.. - 14½	11·9 - 12·6
" 22	15 - 16	14 - 14½	15 - 16	.. - 14½	10·8 - 11·5
" 29	15 - 16	14 - 14½	15 - 16	.. - 14½	10.8 - 11·5
Dec. 6	15 - 16	14 - 14½	15 - 15½	.. - 14½	11·3 - 11·9
" 13	15 - 16	14 - 14½	15 - 15½	.. - 13½	10·8 - 11·9
" 20	15 - 16	14 - 14½	15 - 15½	.. - 13½	10·4 - 11·3
" 27	15 - 16	14 - 14½	14½ - 15	.. - 13	10·6 - 11·3
1912.					
Jan. 3	15 - 16	14 - 14½	14½ - 15	.. - 13	11.3 - 11·9
" 10	15 - 16	14 - 14½	13½ - 14	.. - 13	11·5 - 11·9
" 17	15 - 16	14 - 14½	13½ - 14	.. - 13	11·5 - 11·9
" 24	15 - 16	14½ - 15	14 - 14½	.. - 13	11·3 - 11·9
" 31	15 - 16	14½ - 15	14 - 14½	.. - 13	11·3 - 11·9
Feb. 7	15 - 16	14½ - 15	14 - 14½	.. - 13	11·7 - 12·3
" 14	16 - 17	14½ - 15	14 - 14½	.. - 13	12·6..13·0
" 21	16 - 17	14½ - 15	13¾ - 14¼	.. - 13	12·6 - 13·0
" 28	16 - 17	14½ - 15	13¾ - 14¼	.. - 13	12·6 - 13·0
Mar. 6	16 - 17	14½ - 15	13¾ - 14¼	.. - 13	12·3 - 13·0
" 13	16 - 17	14½ - ..	13¾ - 14¼	.. - 13	12 3 - 13·0
" 20	15 - 17	16 - 18	13¾ - 14¼	13 - 13½	12·3 - 13·0
" 27	15 - 17½	17 - 18	14 - 15	13½ - 14	12·6 - 13·0

Market Quotations for Dressed Beef (No. 1 Carcass) Each Week from April 5, 1911, to March 27, 1912.

(From "Canadian Farm" and "National Provisioner.")

—	Toronto.	Montreal.	Chicago.	New York.	Winnipeg.
1911.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.
April 5	9 00– 9 00	8 75– 9 00	10 50–11 50	9 50–10 00	9 00–10 00
" 12	9 00– 9 00	8 75– 9 00	10 50–11 00	9 50–10 00	9 00–10 00
" 19	9 00– 9 00	8 75– 9 00	10 50–11 00	9 50–10 25	9 00–10 00
" 26	9 00–10 00	9 00–10 00	10 50–11 00	9 50–10 00	10 00–10 50
May 3	9 00–10 00	9 00–10 00	10 50–11 00	9 50–10 00	10 00–10 50
" 10	9 00–10 00	9 00–10 00	10 50–11 00	9 50–10 00	10 00–10 50
" 17	9 00–10 00	9 00–10 00	10 25–11 00	9 50–10 00	10 00–10 50
" 24	9 00–10 00	9 00–10 00	10 25–11 00	9 25–10 00	10 00–10 50
" 31	9 00–10 00	9 00–10 00	10 25–11 00	9 25– 9 50	10 00–10 50
June 7	9 00–10 00	9 00–10 50	10 00–11 00	9 25– 9 50	10 00–10 50
" 14	9 00–10 00	9 00–10 50	10 00–11 00	9 25– 9 50	10 00–10 50
" 21	9 00–10 00	9 00–10 50	10 00–11 00	9 25– 9 50	10 00–10 50
" 28	9 00–10 00	9 00–10 50	10 00–11 00	9 25–10 00	10 00–10 50
July 5	9 00–10 00	9 00–10 50	10 00–11 00	9 50–10 00	10 00–10 50
" 12	9 00–10 00	9 00–10 50	10 00–11 00	9 50–10 00	10 00–10 50
" 19	9 00–10 00	9 00–10 50	10 00–11 00	9 50–10 25	10 00–10 50
" 26	9 00–10 00	9 00–10 50	10 50–11 00	9 50–10 50	10 00–10 50
Aug. 2	9 00–10 00	9 00–10 50	10 50–11 50	9 50–10 50	10 00–10 50
" 9	9 00–10 00	9 00–10 50	10 50–11 50	10 50–11 00	10 00–10 50
" 16	9 00–10 00	9 00–10 50	10 75–11 50	11 50–12 00	10 00–10 50
" 23	9 00–10 00	9 00–10 25	11 00–12 00	11 50–12 00	10 00–10 40
" 30	9 00–10 00	9 00–10 25	11 00–12 50	11 50–12 00	10 00–10 40
Sept. 6	9 00–10 00	9 00–10 25	11 00–12 50	11 50–12 00	10 00–10 35
" 13	9 00–10 25	9 00–10 25	11 00–12 00	11 50–12 00	10 00–10 35
" 20	9 00–10 25	9 00–10 25	11 50–12 00	10 75–11 50	10 00–10 35
" 27	9 00–10 25	9 00–10 25	11 50–12 00	10 75–11 50	10 00–10 25
Oct. 4	9 00–10 25	9 00–10 25	11 50–12 00	10 75–11 50	10 00–10 25
" 11	9 00–10 25	9 00–10 50	11 50–12 50	11 00–12 00	10 00–10 25
" 18	9 00–10 25	9 00–10 50	11 25–12 25	11 25–12 00	10 00–10 25
" 25	9 00– 9 75	9 00–10 00	11 50–12 50	11 50 12 50	10 00–10 25
Nov. 1	9 00– 9 75	9 00–10 00	11 50–12 50	11 50–12 50	10 00–10 25
" 8	9 00– 9 75	9 00–10 00	11 50–12 50	11 50–12 50	9 00– 9 50
" 15	9 00– 9 75	9 00–10 00	11 75–12 75	11 50–12 50	9 00– 9 50
" 22	9 00– 9 75	9 00–10 00	11 75–12 75	11 50–12 50	9 00– 9 50
" 29	9 00– 9 75	9 00–10 00	12 00–13 00	11 50–12 50	9 00– 9 50
Dec. 6	9 00– 9 75	9 00–10 00	12 00–13 00	11 00–12 50	9 00– 9 50
" 13	9 00– 9 75	9 00–10 00	12 00–13 00	11 00–12 50	9 00– 9 50
" 20	9 00– 9 75	9 00–10 00	12 00–13 00	11 00–12 50	9 00– 9 50
" 27	9 00– 9 75	9 00–10 00	12 00–13 00	11 00–12 50	9 00– 9 50
1912.					
Jan. 3	9 00– 9 75	9 00–10 00	12 00–13 00	11 00–12 50	9 00– 9 50
" 10	9 00– 9 75	9 00–10 00	11 50–12 50	11 50–12 50	9 00– 9 50
" 17	9 00– 9 75	9 00–10 00	11 50–12 50	11 50–12 50	9 00– 9 50
" 24	9 00–10 00	9 00–10 00	11 50–12 50	11 50–12 50	9 00– 9 50
" 31	9 00–10 00	9 00–10 00	12 00–12 50	11 00–11 50	9 00– 9 50
Feb. 7	9 00–10 00	9 00–10 00	12 00–12 50	.....–12 50	9 00– 9 50
" 14	9 00–10 00	9 00–10 00	12 00–12 50	.....–12 50	9 00– 9 50
" 21	10 00–11 00	9 00–10 00	12 00–12 50	.....–12 00	9 00– 9 50
" 28	10 00–11 00	9 00–10 00	12 00–12 50	.....–12 00	9 00– 9 50
Mar. 6	10 50–11 00	9 00–10 00	11 50–12 50	.....–12 00	9 00– 9 50
" 13	10 50–11 00	9 00–10 00	11 50–12 50	11 50–12 00	9 00– 9 50
" 20	10 50–11 00	9 00–10 00	11 50–12 50	11 50–12 50	9 00– 9 50
" 27	10 50–11 00	9 00–10 00	11 50–12 50	11 50–12 50	9 00– 9 50

Market Quotations for Live Hogs Each Week from April 5, 1911, to March 27, 1912.

(From "Weekly Globe," "Journal of Commerce," "Canadian Farm," "Buffalo Commercial" and "National Provisioner.")

Date	Toronto. "Choice" per 100 lbs.	Montreal. "Selects" per 100 lbs.	Winnipeg. "Choice."	Chicago. "Bulk of Sales."	Buffalo. "Yorkers."	New York. "Medium Weight."
	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $. cts.	$ cts. $ cts.	$ cts. $ cts.
1911.						
Apr. 5	6 70–....	7 40–7 50	7 25–7 50	6 65–6 85	7 25–7 35	.... –7 30
" 12	6 50–...	7 00–7 40	7 25–7 50	6 35–6 45	7 20–7 35	.... –7 05
" 19	6 50–....	....–6 75	6 90–7 00	6 20–6 30	6 80–6 85	.... –7 00
" 26	6 50–....	....–6 75	6 90–7 25	6 05–6 20	6 55–6 65	.... –6 85
May 3	6 30–....	6 50–6 75	6 50–6 75	5 90–6 00	6 60–6 70	.... –6 60
" 10	6 05–....	6 65–6 85	6 50–6 75	6 15–6 25	6 35–6 40	.... –6 65
" 17	6 05–....	6 75–7 00	6 50–7 00	6 20–6 25	6 50–6 55	.... –6 60
" 24	6 20–....	6 75–6 85	6 50–6 75	5 75–5 90	6 50–6 55	6 55–6 60
" 31	6 40–....	6 85–7 00	6 50–7 00	5 85–6 00	6 50–6 55	6 65–6 70
June 7	6 70–....	....–6 85	7 00–7 35	6 00–6 10	6 35–6 40	6 75–6 80
" 14	7 10–....	7 25–7 50	6 90–7 00	6 00–6 15	6 55–6 60	6 65–6 70
" 21	7 40–....	7 00–7 75	6 90–7 00	6 35–6 45	6 80–6 85	.... –7 20
" 28	7 20–....	7 50–7 75	6 90–7 25	6 15–6 30	6 75–6 80	.... –7 20
July 5	7 10–....	7 25–7 50	6 90–7 25	6 55–6 75	7 20–7 25	.... –7 45
" 12	7 10–...	....–7 50	6 90–7 25	6 40–6 65	7 15–7 20	.... –7 50
" 19	7 45–7 60	7 75–8 00	6 90–7 25	6 55–6 80	....	.... –7 65
" 26	7 70–7 85	....–7 70	6 90–7 25	6 65–6 90	7 40–7 50	.... –7 90
Aug. 2	7 65–7 75	7 50–7 75	6 90–8 00	6 90–7 30	7 95–8 00	.... –8 00
" 9	7 65–7 75	7 00–7 25	6 90–7 50	7 30–7 65	....	.... –8 00
" 16	7 85–7 90	....–7 50	7 25–7 50	7 15–7 60	8 15–8 20	.... –8 45
" 23	....–8 10	7 85–8 00	8 10–8 25	7 25–7 60	8 25–8 30	.... –8 55
" 30	....–8 10	7 75–7 85	8 10–9 00	7 10–7 45	8 00–8 05	.... –8 55
Sept. 6	7 70–7 80	7 75–7 85	8 10–9 00	6 90–7 20	....	.... –8 25
" 13	7 40–7 50	7 50–7 75	8 10–9 00	6 85–7 25	7 50–7 55	7 90–8 15
" 20	7 15–7 25	....–7 25	8 10–9 00	6 75–7 05	7 50–7 60	.... –7 75
" 27	7 10–7 20	7 00–7 10	8 10–8 50	6 30–6 65	7 10–7 15	.... –7 25
Oct. 4	6 75–6 85	6 95–7 00	8 10–8 50	6 20–6 65	....	7 15–7 20
" 11	6 40–....	6 50–6 75	8 10–8 50	6 20–6 60	6 95–7 00	7 05–7 10
" 18	6 15–....	6 25–6 50	7 50–7 75	6 30–6 65	6 95–7 00	7 05–7 10
" 25	6 00–6 15	6 00–6 30	7 50–7 75	6 10–6 35	6 45–6 50	6 80–6 85
Nov. 1	6 10–6 30	6 00–6 30	7 50–7 75	5 95–6 25	6 45–6 50	.... –6 80
" 8	6 35–6 50	6 40–6 60	7 00–7 50	6 05–6 30	6 25–6 40	.... –6 65
" 15	6 75–6 85	6 75–6 85	7 50–8 00	6 30–6 55	6 55–6 60	6 75–6 80
" 22	6 75–6 85	6 65–6 75	7 50–7 85	6 20–6 45	6 30–6 35	6 50–6 55
" 29	....–6 35	6 25–6 50	7 50–8 00	5 95–6 25	6 35–6 45	.... –6 80
Dec. 6	6 50–...	6 50–6 65	7 50–8 00	5 85–6 10	6 25–6 30	.... –6 70
" 13	6 50–6 60	6 65–6 80	7 50–8 50	5 85–6 20	6 30–6 40	6 75–6 80
" 20	6 50–...	6 90–7 00	7 00–7 50	5 95–6 15	6 20–6 25	6 50–6 55
" 27	6 20–....	6 90–7 00	7 00–7 50	6 15–6 35	6 50–6 55	.... –6 80
1912.						
Jan. 3	6 20–....	6 90–7 00	7 00–7 50	5 95–6 15	6 40–6 45	....
" 10	6 40–6 50	7 00–7 10	7 00–7 25	6 10–6 30	....–6 80	.... –7 00
" 17	6 60–....	7 00–7 10	7 00–7 25	6 15–6 35	6 40–6 50	.... –6 75
" 24	6 50–....	7 10–7 25	7 00–7 25	6 05–6 30	6 40–6 60	.... –6 75
" 31	6 50–...	7 10–7 25	7 00–7 25	6 15–6 30	6 40–6 60	.... –6 50
Feb. 7	6 60–6 65	....–7 15	7 00–7 50	6 10–6 30	6 55–6 60	.... –6 75
" 14	6 70–6 75	7 25–7 35	7 00–7 50	6 05–6 20	6 55–6 60	.... –6 75
" 21	6 70–....	7 40–7 50	7 00–7 50	6 15–6 30	6 55–6 60	.... –6 75
" 28	6 75–6 85	7 60–7 75	7 25–7 50	6 30–6 45	6 85–7 05	.... –7 25
Mar. 6	6 90–7 00	....–7 75	7 25–7 50	6 45–6 55	6 75–6 90	.... –7 25
" 13	7 00–7 10	7 75–7 85	7 25–7 50	6 85–7 00	7 20–7 35	.... –7 70
" 20	7 50–7 60	8 00–8 25	7 25–7 50	7 05–7 20	7 80–7 90	7 40–7 90
" 27	7 75–7 90	8 60–8 75	7 25–7 50	7 65–7 80	8 00–8 10	7 70–8 00

NOTE.—Prices at Toronto, Chicago and Buffalo are for hogs "fed and watered"; those at Montreal and Winnipeg for hogs "weighed off cars". Therefore to make a fair comparison 25c. should be deducted from each Montreal and Winnipeg quotation.

Market Quotations for Live Cattle Each Week from April 5, 1911, to March 27, 1912.

(From "Canadian Farm.")

Date	Toronto.		Montreal.		Winnipeg.
	Export Steers "Choice."	Butcher Steers "Prime."	Export Steers "Choice."	Butcher Steers "Prime."	Butcher Steers "Prime."
1911.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $cts.
April 5	5 85–6 12	5 80–6 25	6 25–6 50	6 25–6 50	5 25–6 25
" 12	5 85–6 15	5 80–6 25	6 25–6 50	7 00–8 00	5 25–6 25
" 19	5 85–6 15	5 80–6 10	6 00–6 25	6 00–6 25	5 25–6 25
" 26	5 75–5 90	5 75–5 90	6 25–6 50	6 25–6 50	5 25–6 25
May 3	5 75–6 00	5 75–6 00	6 25–6 50	6 25–6 50	5 25–6 00
" 10	5 75–6 12	5 75–6 00	6 00–6 25	6 25–6 50	5 25–6 00
" 17	5 75–5 90	5 50–5 85	6 00–6 35	5 75–6 00	5 25–6 00
" 24	5 85–6 00	5 75–6 00	6 25–6 50	5 75–6 00	6 25–6 75
" 31	5 85–6 00	5 75–6 00	6 25–6 50	5 75–5 90	6 00–6 75
June 7	6 00–6 25	5 75–6 10	6 25–6 50	5 75–6 00	6 00–6 75
" 14	6 00–6 35	5 75–6 30	6 25–6 50	5 75–6 00	6 00–6 75
" 21	6 00–6 25	5 75–6 15	6 25–6 50	5 75–6 00	6 00–6 75
" 28	6 00–6 15	5 75–6 25	6 25–6 50	5 75–6 00	6 00–6 75
July 5	5 80–6 10	5 75–6 10	6 25–6 50	5 75–6 00	6 00–6 75
" 12	5 80–6 75	5 75–6 10	6 00–6 25	5 75–6 00	6 00–6 75
" 19	5 60–6 05	5 60–5 95	5 90–6 25	5 75–6 00	5 75–6 25
" 26	5 75–6 25	5 60–6 00	5 90–6 25	5 75–6 00	5 75–6 00
August 2	5 75–6 30	5 60–6 00	5 90–6 25	5 75–6 00	4 80–5 25
" 9	5 75–6 25	5 90–6 30	5 90–6 00	5 75–5 90	4 50–5 00
" 16	5 75–6 25	5 20–6 30	5 90–6 00	5 75–5 90	4 50–5 25
" 23	5 75–6 20	5 20–6 20	5 90–6 25	5 75–6 00	4 50–5 25
" 30	5 75–6 40	5 20–6 15	5 90–6 25	5 75–6 00	4 50–5 50
September 6	5 80–6 50	5 90–6 10	5 90–6 25	5 75–6 00	4 50–5 00
" 13	5 75–6 60	5 90–6 20	5 90–6 25	5 75–6 25	4 75–5 25
" 20	5 75–6 50	5 90–6 10	5 90–6 00	5 75–6 00	4 75–5 25
" 27	6 30–6 45	5 80–6 10	5 90–6 00	5 75–6 00	4 75–5 00
October 4	6 30–6 35	5 80–6 10	6 00–6 50	5 75–6 00	4 75–5 00
" 11	6 30–6 60	5 80–6 30	6 00–6 25	5 75–5 85	4 75–5 15
" 18	5 90–6 25	5 80–6 10	6 00–6 25	5 75–6 00	4 50–4 65
" 25	5 85–6 45	5 80–6 00	5 90–6 00	5 75–6 00	4 85–5 00
November 1	6 25–6 40	5 65–5 80	5 90–6 10	5 50–5 60	4 85–5 15
" 8	6 25–6 50	5 50–6 00	5 90–6 10	5 80–5 90	4 85–5 10
" 15	6 10–6 50	5 80–6 00	5 90–6 35	6 00–6 25	4 75–5 00
" 22	6 00–6 10	5 75–5 85	5 90–6 35	6 00–6 25	4 75–5 00
" 29	6 10–6 10	5 80–6 00	5 90–6 00	6 00–6 10	4 75–5 00
December 6	6 40–6 60	6 00–6 10	5 90–6 20	6 00–6 10	4 75–5 00
" 13	6 40–6 75	6 00–6 40	5 90–6 60	6 25–6 40	4 75–5 00
" 20	6 50–6 75	6 60–6 75	5 90–6 60	6 25–6 40	5 00–5 25
" 27	6 50–6 75	6 75–6 90	5 90–6 60	6 25–6 40	5 00–5 25
1912.					
January 3	6 50–6 75	6 00–6 50	5 90–6 60	6 25–6 40	5 00–5 25
" 10	6 50–6 90	.....	5 90–6 60	.....	4 50–5 15
" 17	6 75–7 25	.....	6 90–7 25	.....	4 50–5 15
" 24	6 60–7 00	.....	6 90–7 00	.....	4 50–5 50
" 31	6 50–6 75	6 50–6 75	6 90–7 00	.....	4 50–5 50
February 7	6 50–7 00	6 75–6 90	6 90–7 00	.....	5 00–6 00
" 14	6 15–6 90	6 50–6 75	6 90–7 00	.....	5 00–6 00
" 21	6 80–7 25	6 25–6 50	6 90–7 00	.....	5 00–6 00
" 28	6 80–6 90	6 25–6 50	.....	7 00–7 25	5 50–6 00
March 6	6 90–7 12	6 70–6 90	.....	.....	5 50–6 25
" 13	7 00–7 25	6 50–6 85	.....	.....	6 25–6 50
" 20	7 00–7 05	6 90–7 00	.....	7 25–7 35	6 25–6 50
" 27	6 75–7 20	7 25–8 25	.....	7 35–7 50	6 00–6 25

Market Quotations for Live Cattle—*Continued.*

(From "The Breeder's Gazette," "Buffalo Commercial" and "National Provisioner.")

Date.	Chicago.		Buffalo.		New York.
	Steers 1,250 to 1,450 lbs.	Steers 1,150 to 1,400 lbs.	Prime Steers.	Shipping Steers.	Good to Choice Native Steers.
1911.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.	$ cts. $ cts.
April 5	6 60 – 6 90	6 30 – 6 60	6 40 – 6 80	.....	6 25 – 6 80
" 12	6 50 – 6 80	6 20 – 6 40	6 50 – 6 75	.....	6 10 – 6 75
" 19	6 40 – 6 75	6 15 – 6 35	.....	.....	6 10 – 6 75
" 26	6 20 – 6 45	5 90 – 6 15	6 25 – 6 40	.....	5 90 – 6 50
May 3	6 20 – 6 50	5 85 – 6 10	.....	.....	5 65 – 6 20
" 10	6 25 – 6 50	6 00 – 6 20	.....	.....	6 00 – 6 40
" 17	6 25 – 6 50	6 00 – 6 20	6 15 – 6 25	.....	5 80 – 6 50
" 24	6 20 – 6 40	5 90 – 6 15	6 30 – 6 40	.....	5 80 – 6 35
" 31	6 20 – 6 35	5 90 – 6 15	6 25 – 6 40	.....	5 90 – 6 50
June 7	6 20 – 6 35	5 75 – 6 15	6 30 – 6 45	6 00 – 6 25	5 90 – 6 50
" 14	6 25 – 6 45	5 90 – 6 20	6 50 – 6 75	5 75 – 6 40	6 15 – 6 70
" 21	6 25 – 6 50	5 90 – 6 20	6 40 – 6 50	5 50 – 6 25	6 15 – 6 70
" 28	6 25 – 6 65	5 90 – 6 20	6 50 – 6 65	5 50 – 6 25	6 15 – 6 70
July 5	6 50 – 6 85	6 15 – 6 35	6 65 – 6 75	5 75 – 6 25	6 15 – 6 65
" 12	6 50 – 7 00	6 15 – 6 35	6 50 – 6 65	5 75 – 6 25	6 25 – 6 80
" 19	6 40 – 6 85	6 00 – 6 30	.....	.....	6 25 – 6 90
" 26	6 75 – 7 15	6 40 – 6 65	6 75 – 6 90	6 15 – 6 40	6 25 – 7 00
Aug. 2	6 85 – 7 15	6 40 – 6 65	6 90 – 7 20	6 25 – 6 65	6 10 – 7 25
" 9	7 15 – 7 50	6 60 – 7 00	.....	.....	6 00 – 7 00
" 16	7 40 – 8 00	6 75 – 7 25	7 15 – 7 25	6 75 – 7 00	6 35 – 7 25
" 23	7 75 – 8 15	7 00 – 7 65	7 15 – 7 25	6 75 – 7 00	6 40 – 7 50
" 30	7 75 – 8 20	7 00 – 7 65	7 10 – 7 25	6 25 – 6 75	6 45 – 7 55
Sept. 6	7 75 – 8 00	7 00 – 7 65	.....	.....	6 40 – 7 50
" 13	7 80 – 8 15	7 00 – 7 65	7 45 – 7 65	6 40 – 6 80	6 45 – 7 50
" 20	7 80 – 8 15	7 00 – 7 65	7 75 – 7 90	6 75 – 7 50	6 40 – 7 75
" 27	7 80 – 8 15	7 00 – 7 65	7 50 – 7 60	6 75 – 7 40	6 00 – 7 25
Oct. 4	7 80 – 8 20	7 00 – 7 65	.....	.....	6 15 – 7 25
" 11	8 00 – 8 40	7 25 – 7 90	7 50 – 7 75	6 75 – 7 25	6 25 – 7 30
" 18	8 00 – 8 30	7 25 – 7 90	7 50 – 7 75	6 75 – 7 25	6 20 – 7 35
" 25	8 20 – 8 50	7 30 – 8 10	7 40 – 7 75	6 50 – 7 25	6 30 – 7 60
Nov 1	8 40 – 8 75	7 50 – 8 25	7 40 – 7 75	6 50 – 7 25	6 50 – 7 75
" 8	8 30 – 9 00	7 50 – 8 25	7 75 – 8 00	6 60 – 7 25	6 40 – 8 00
" 15	8 40 – 9 00	7 50 – 8 25	7 75 – 8 00	6 60 – 7 25	6 30 – 7 75
" 22	8 30 – 8 90	7 40 – 8 20	7 75 – 7 85	6 60 – 7 25	6 40 – 7 75
" 29	8 50 – 9 15	7 40 – 8 40	7 75 – 8 00	6 60 – 7 25	6 50 – 7 50
Dec. 6	8 75 – 9 25	7 75 – 8 60	7 75 – 8 00	6 60 – 7 25	6 65 – 7 75
" 13	8 75 – 9 00	7 75 – 8 60	8 25 – 8 50	6 50 – 7 50	6 65 – 7 75
" 20	..... – 9 00	..... – 7 75	8 00 – 8 25	6 50 – 7 35	6 50 – 7 50
" 27	8 00 – 8 60	6 90 – 7 50	7 50 – 8 00	6 50 – 7 35	6 65 – 7 75
1912.					
Jan. 3	8 00 – 8 60	6 75 – 7 25	7 50 – 8 00	6 50 – 7 35	.....
" 10	7 85 – 8 35	6 60 – 7 10	8 00 – 8 50	6 75 – 7 25	6 75 – 7 75
" 17	7 75 – 8 35	6 60 – 7 10	8 00 – 8 25	6 75 – 7 75	6 75 – 8 00
" 24	7 25 – 7 85	6 10 – 6 50	7 90 – 8 00	6 60 – 7 50	6 75 – 7 85
" 31	7 30 – 7 90	6 10 – 6 60	7 25 – 7 75	6 40 – 7 15	6 60 – 7 60
Feb. 7	7 50 – 8 25	6 30 – 6 75	8 00 – 8 15	7 00 – 7 50	6 75 – 7 90
" 14	7 50 – 8 25	6 30 – 6 75	7 75 – 8 00	7 00 – 7 50	6 65 – 7 80
" 21	7 50 – 8 25	6 30 – 6 75	7 65 – 8 00	6 65 – 7 25	6 50 – 7 75
" 28	7 75 – 8 30	6 50 – 7 00	7 65 – 8 00	6 65 – 7 25	6 60 – 7 60
Mar. 6	7 90 – 8 40	6 75 – 7 25	7 65 – 8 00	6 65 – 7 25	6 75 – 8 00
" 13	7 75 – 8 25	6 70 – 7 00	7 65 – 7 85	6 65 – 7 25	6 75 – 7 85
" 20	7 75 – 8 30	6 70 – 7 00	8 00 – 8 15	7 00 – 7 75	6 85 – 8 00
" 27	7 85 – 8 40	7 00 – 7 30	8 00 – 8 15	7 00 – 7 75	6 90 – 8 00

Wholesale Quotations for Cash Wheat from April 1, 1911, to March 30, 1912.

Prices for first three markets taken from "The Weekly Northwestern Miller"; Liverpool prices from "The Free Press," Winnipeg.

Date.	Minneapolis. No. 1 Northern. Per Bushel.	Chicago. No. 1 Northern. Per Bushel.	Winnipeg. No. 1 Northern. Per Bushel.	Liverpool. No. 1 Northern. (Manitoba.) Per Bushel.
1911.	$ cts.	$ cts.	$ cts.	$ cts.
April 1.	0 92⅞	0 96½	0 88	Average for month 1 08
" 8.	0 95⅝	0 98	0 88¾	
" 15.	1 00½	1 02	0 92½	
" 22.	1 00	1 03	.....	
" 29.	0 98½	1 00½	0 94¼	
May 6.	0 97¾	0 94½	0 96	Average for month 1 06
" 13.	1 00¾	1 04½	0 95⅞	
" 20.	0 98¾	1 02½	0 94	
" 27.	0 97⅞	1 02	0 95¼	
June 3.	0 99⅜	1 01	.....	
" 10.	0 95½	0 97½	0 97¼	Average for month 1 07
" 17.	0 94⅞	0 96½	0 95¾	
" 24.	0 97⅜	0 99	0 95½	
July 1.	0 97⅝	0 96½	.....	1 08
" 8.	1 00¾	1 00¼	0 97	1 12⅞
" 15.	0 97½	1 04¼	0 95¾	
" 22.	0 98⅞	1 04¼	0 95¾	1 09¾
" 29.	1 01¾	1 06½	0 95¾	
Aug. 5.	1 06	1 10¼	0 98	
" 12.	1 05⅝	1 12	0 99¼	
" 19.	1 05¾	1 04	0 98¾	
" 26.	1 04⅜	1 08	1 01½	1 1[illegible]
Sept. 2.	1 04⅝	1 07	.....	1 16⅜
" 9.	1 05¾	1 08	.....	
" 16.	1 02⅞	1 04½	0 99¼	
" 23.	1 11¼	1 07¾	1 00	
" 30.	1 07⅞	1 10½	1 00	
Oct. 7.	1 08¼	1 10¾	0 99½	1 20
" 14.	1 09½	1 13¼	0 99½	
" 21.	1 12¼	1 16½	1 02	
" 28.	1 07½	1 12	0 98¼	
Nov. 4.	1 03⅞	1 07½	.....	
" 11.	1 04¾	1 08½	0 98	
" 18.	1 05⅝	1 09½	0 99⅝	
" 25.	1 05¼	1 08½	0 97	
Dec. 2.	1 03½	1 08	0 96¼	
" 9.	0 99¾	1 07	0 94¾	
" 16.	1 03¾	1 07	0 94½	
" 23.	.....	.....	.....	
" 30.	1 06¾	1 07½	0 93¼	
1912.				
Jan. 6.	1 09	1 10	0 94¾	
" 13.	1 06¼	1 09	0 95¼	
" 20.	1 06	1 10	0 96½	1 21¼
" 27.	1 07¼	1 11	0 96¾	1 21¼
Feb. 3.	1 07⅞	1 13	0 97¾	1 22⅜
" 10.	1 07¾	1 13	0 98¼	1 24⅞
" 17.	1 03½	1 11	0 96¼	1 23½
" 24.	1 05	1 09½	0 96½	
March 2.	1 08⅞	1 12½	0 98½	
" 9.	1 09⅜	1 12½	0 99	
" 16.	1 06½	1 09½	0 98	
" 23.	1 08½	1 12½	0 99½	
" 30.	1 07⅝	1 11½	.....	

Wholesale Quotations for Malting Barley Each Week from April 1, 1911, to March 30, 1912.

(From the "Weekly Northwestern Miller.")

Week.	Minneapolis.	Buffalo.	Milwaukee.	Toronto.	Winnipeg.
	"Best Malting" per bushel.	"Best Malting" per bushel.	"No. 2" per bushel.	"No. 2" per bushel.	"No. 3" per bushel.
1911.	$ cts.	$ cts. $ cts.	$ cts. $ cts.	Cts. Cts.	Cts.
April 1	1 02	1 10 –1 14	1 05 –1 15	63 – 67	65
" 8	1 05	1 09 –1 12	1 04½–1 12	63 – 67	70
" 15	1 05½	1 10 –1 12	1 05 –1 10½	63 – 67	70
" 22	1 08	1 12 –1 14	1 10½–1 11	70 – 72	68
" 29	1 10	1 10 –1 15	1 08 –1 16	70 – 72	69
May 6	1 05	1 10 –1 14	1 09 –1 14	70 – 73	69
" 13	0 95	1 06 –1 08	1 00 –1 11	70 – 73	69
" 20	0 97	1 03 –1 08	1 00 –1 04	70 – 73	68
" 27	0 94	.....	1 00 –1 01	70 – 73	68
June 3	0 86	.....	0 90 –0 97	70 – 73	..
" 10	0 93½	0 96 –1 03	0 75 –0 90	68 – 70	..
" 17	0 95	1 00 –1 05	0 97 –.....	65 – 67	..
" 24	1 03	1 12 –1 15	1 15 –.....	60 – 65	..
July 1	0 99	1 12 –1 15	1 05 –1 16	60 – 65	..
" 8	1 02½	1 10 –.....	1 07 –1 12	60 – 65	60
" 15	1 05	.....	1 10 –1 16	60 – 65	..
" 22	1 07	.....	1 10 –1 15	60 – 65	59
" 29	1 05	1 12 –1 15	1 00 –1 05	60 – 65	59
Aug. 5	1 04	0 98 –1 03	1 09 –.....	60 – 65	59½
" 12	1 09	1 12 –1 18	1 10½–1 11	60 – 65	60
" 19	1 12	1 14 –1 16	1 12 –1 16	60 – 65	61
" 26	1 14	1 17 –1 18	1 16 –1 19	65 – 67	68
Sept. 2	1 14	1 18 –1 20	1 18 –1 22	65 – 67	72
" 9	1 14	1 15 –1 18	1 21 –.....	80 –.....	72
" 16	1 18	1 14 –1 20	1 20 –1 24	80 –.....	72½
" 23	1 16	1 18 –1 25	1 22 –1 25	83 – 85	71
" 30	1 18	1 14 –1 22	1 22 –1 25	83 – 85	74
Oct. 7	1 18	1 14 –1 24	1 24 –1 25	83 – 85	72
" 14	1 15	1 12 –1 20	1 23 –1 25	90 –.....	79
" 21	1 18	1 16 –1 25	1 20 –1 25	97 –$1 00	71½
" 28	1 18	1 17 –1 25	1 08 –1 19	97 – 1 00	70
Nov. 4	1 18	1 16 –1 17	1 22 –1 25	97 – 1 00	..
" 11	1 17	1 14 –1 16	1 22 –1 28	90 – 93	65
" 18	1 19	1 16 –1 30	1 26 –1 30	90 –.....	..
" 25	1 19	1 14 –1 25	1 25 –1 30	90 –.....	66
Dec. 2	1 18	1 18 –1 25	1 23 –1 27	88 – 90	..
" 9	1 13	1 18 –1 19	1 22 –1 26	86 – 88	..
" 16	1 14	1 14 –1 15	1 22 –1 23	80 – 82	..
" 23	....	1 18 –1 25	1 25 –1 28	76 – 80	..
" 30	1 22	1 18 –1 30	1 28 –1 30	80 –.....	..
1912.					
Jan. 6	1 30	1 22 –1 30	1 30 –1 32	85 –.....	65
" 13	1 28	1 25 –1 36	1 32 –1 35	85 – 88	67
" 20	1 25	1 25 –1 35	1 33 –1 34	90 –.....	68
" 27	1 28	1 20 –1 32	1 33 –1 35	93 – 95	68
Feb. 3	1 26	1 20 –1 32	1 32 –1 34	95 –.....	67
" 10	1 27	1 22 –1 30	1 31 –1 33	$1 00 –.....	67
" 17	1 27	1 20 –1 32	1 28 –1 32	97 – 98	70
" 24	1 27	1 20 –1 32	1 28 –1 30	95 –.....	63
March 2	1 25	1 22 –1 32	1 26 –1 28	95 –.....	63
" 9	1 25	1 22 –1 35	1 29 –1 31	92 – 95	62
" 16	1 25	1 20 –1 35	1 28 –1 32	92 – 95	62
" 23	1 26	1 22 –1 36	1 32 –1 34	92 –.....	62
" 30	1 30	1 24 –1 38	1 34 –1 36	92 –.....	65

Wholesale Quotations for Spring Wheat Flour, Second Patent, in Sacks, in First Week of each month from April, 1911, to March, 1912.

(From "The Northwestern Miller").

Month.	New York.	Chicago.	Montreal.	Toronto.	Winnipeg.	London.	Liverpool.
	F. O. B. New York.	F. O. B. Chicago.	Delivered to Retailers.	F. O. B. Toronto.	"Delivered"	C. I. F. Quotation by Mills.	C. I. F. Quotation by Mills.
	per 196 lbs.	per 196 lbs.	per 196 lbs.	per 196 lbs.	per 196 lbs.	per 196 lbs.	per 196 lbs.
1911.	$ cts. $ cts.	$ cts. $ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
April	4 40—4 70	4 25—4 50	5 10	4 90	4 80	4 12	4 12
May	4 70—4 90	4 40—4 55	4 80	4 60	4 80	4 31	4 28
June	4 60—4 90	4 25—4 50	4 80	4 60	4 80	4 31	4 20
July	4 60—4 90	4 30—4 50	4 80	4 60	4 80	4 41	4 29
August	4 65—4 90	4 40—4 60	4 80	4 60	4 80	4 54	4 51
Sept	4 75—5 15	4 60—4 85	4 90	4 80	5 00	4 58	4 54
Oct	4 95—5 30	4 75—5 10	4 90	4 80	5 00	4 58	4 54
Nov	4 85—5 25	4 75—5 00	4 90	5 00	5 20	4 62	4 58
Dec	4 85—5 25	4 70—5 10	5 10	5 00	5 20	4 54	4 54
1912.							
Jan	4 95—5 25	4 75—5 15	5 10	5 00	5 20	4 54	4 51
Feb	5 00—5 30	4 75—5 10	5 10	5 00	5 20	4 71	4 70
March	4 75—4 95	4 80—5 05	5 10	5 00	5 00	4 62	4 62

REPORTS OF CARGO INSPECTORS IN GREAT BRITAIN.

Following are the annual reports of the cargo inspectors employed under the direction of this Branch at Liverpool, Manchester, Glasgow, Bristol and London.

Report of Chief Cargo Inspector for Great Britain (Mr. A. W. Grindley).

Liverpool, March 31, 1912.

I have the honour to submit my report for the year ending March 31, 1912.

During the past year there has been no change in the staff of cargo inspectors employed in Great Britain and their work has been carried on in a most satisfactory manner. All Canadian perishable food products landed at the ports of Liverpool, Manchester, London, Bristol and Glasgow, have been carefully watched, and detailed reports regularly forwarded to Ottawa. Besides the regular printed forms, which show how and where the goods are carried and the condition in which they are discharged at the various ports, the inspectors have made from time to time special reports relative to the packing, marking, &c, of Canadian food products exported to Great Britain. During the apple season the inspectors attend as many of the sales as possible.

I am pleased to report that all officials belonging to the different shipping companies, as well as the members of the fruit and provision trades at the ports where Canadian cargo inspectors are located, extend every courtesy to the representatives of the Canadian Department of Agriculture.

APPLES.

Climatic influences last year caused most of the apples by December to show a spent or over-ripe condition, similar to what is expected in normal seasons about the first of March, the result being that before Christmas, when prices generally stiffen, the Liverpool market sagged off fully two shillings per barrel on apples which had been held in *ordinary warehouses.*

Apples, however, which had been carefully selected and kept in cold storage stood up well, were of fine appearance and were crisp and juicy. This well selected fruit, which had been held in cold storage, was in keen demand by the best class of buyers, and realized good prices throughout the season.

SMALL LOTS OF MIXED VARIETIES.

Immense quantities of small lots of mixed varieties are still exported from Canada. These small mixed lots hurt the general tone of the market, as important buyers will not give them their attention, the result often being a dull dragging market with declining prices.

APPLES PACKED IN BOXES.

The export of selected apples—properly packed in boxes—containing about 40 pounds net of fruit—should be encouraged as there is a growing demand for the box package, supplied at a reasonable price to the consumer.

Prizes are now offered at British fruit shows for apples packed in such commercial packages as barrels and boxes, properly graded and packed, and during the past season apples from Kent, well graded and packed neatly in boxes, were, on the same market in Liverpool, quickly cleared at high prices when competing against Canadian and United States apples packed in barrels.

A SUCCESSFUL SHIPMENT OF PEACHES.

One shipment of peaches received here last fall turned out so successful in every way as to prove that with peaches of proper quality and in proper condition when started and kept under proper supervision all along the line, success can be guaranteed. I refer to a consignment of Canadian peaches, which were carefully selected and packed in an ideal manner under the supervision of Mr. W. W. Moore, Chief of the Markets Division. These peaches were shipped from Jordan, Ontario, to Montreal in a refrigerator car on September 13, 1911, thence in cold storage by the ss. *Megantic,* sailing on September 16. They were discharged at Liverpool on September 26 and forwarded in a refrigerator car to the 'Festival of the Empire Exhibition,' Crystal Palace, London, and were on display on September 27, or fourteen days after leaving Jordan. The thermograph record showed a temperature while at sea of 36° Fah., which was allowed to rise to 44° Fah. before the ship's refrigerator chamber was opened. These peaches were kept on exhibition on an open stand for exactly one month, and would have kept longer but for a spell of warm, muggy weather. Every link in the chain connected with this consignment appears to have been as nearly perfect as possible—quality, variety, and size of fruit, style of packing, rapidity of transportation from packing house in Canada to Crystal Palace, London, and finally the sound and proper degree of ripeness in which the peaches reached their destination. A commercial consignment which came at the same time and under similar conditions had among them some peaches which had been picked too green, and they never matured properly, being sour, dry and lacking in colour and flavour. Other consignments received at Liverpool by different steamers and re-shipped by rail to various markets were forwarded by slow trains and not in iced cars and by missing the proper market day at Covent Garden realized lower prices than would otherwise have been the case.

CHEESE.

Last year Mr. G. G. Publow, Chief Instructor and Sanitary Inspector for Eastern Ontario, visited Great Britain and made very complete inquiries relative to the British end of the Canadian cheese trade. Visits from such experienced and practical men as Mr. Publow should be encouraged, not only in connection with cheese, but also with reference to fruit and other Canadian food products.

SIZE AND WEIGHT OF CHEESE EXPORTED.

Some complaints are made regarding Canadian cheese being too large and heavy. These complaints come from men all along the line who have to lift up or take down cheese piled six or seven high, and these heavy weights, from 80 to 100 pounds, are also objectionable in many of the retail shops in Great Britain which are in charge of women and girls—75 to 80 pounds are popular sizes. Over 80 pounds is too heavy for one man to handle and he often lets it drop as the easiest way of getting it down, the result being a broken box and perhaps a damaged cheese. As there is a limited demand for large cheese to place in show windows, it might be advisable to use the New Zealand type of crate for heavy cheese, i.e., place two cheese in a crate strongly made of slats. The New Zealand crate is very seldom broken, the weight being sufficient to require two men to handle it, so there is no careless rough handling such as the average Canadian cheese box has to meet during transportation.

Complaints are still heard regarding the shortage of actual weights of cheese when compared to the weight stencilled on the box; even after a liberal allowance is made for average shrinkage cheese have been 10 pounds lighter than the marked weight. I have yet to see a weight stencilled which is less than the cheese weighs, the errors being always on the short side. All cheese boxes should be stencilled with 'Canadian Produce' together with the factory mark and weight.

COMPULSORY REGISTRATION OF CHEESE FACTORIES AND CREAMERIES.

It would be a good thing if all cheese factories and creameries had a number registered at Ottawa and stencilled it plainly on all boxes of butter and cheese. This would enable cargo inspectors to report specifically to Ottawa those who were committing frauds of any kind, such as plugged cheese, false weights, &c. At present we find the most reliable shippers using marks which can easily be identified, but shippers of inferior goods send them forward with no mark by which they can be traced. These unmarked or badly marked packages often fall on the hands of the shipping company concerned, which has to dispose of the goods as best it can.

Under the 'Fruit Marks Act' frauds of any kind can readily be traced to the parties responsible, as it is compulsory to stencil the full name and address of the packer upon the package. A registered number stencilled on boxes of cheese or butter would answer the same purpose and take up little space, as the number could be placed in the centre of a stencil plate also bearing the words 'Canadian Produce.'

The responsibility should come forward with the package so that inspectors could do effective work without causing unnecessary irritation when endeavouring to trace the maker, or shipper, of the goods at fault.

The British Government may amend the Merchandise Marks Act, making it compulsory to mark country of origin. As it now stands, articles bearing no marks are allowed to enter; so Canada would only be protecting her own produce by having a Marks Act by which cheese and butter could be identified as readily as a box or a barrel of Canadian apples, or as readily as the dairy products of foreign countries which are exported to Great Britain.

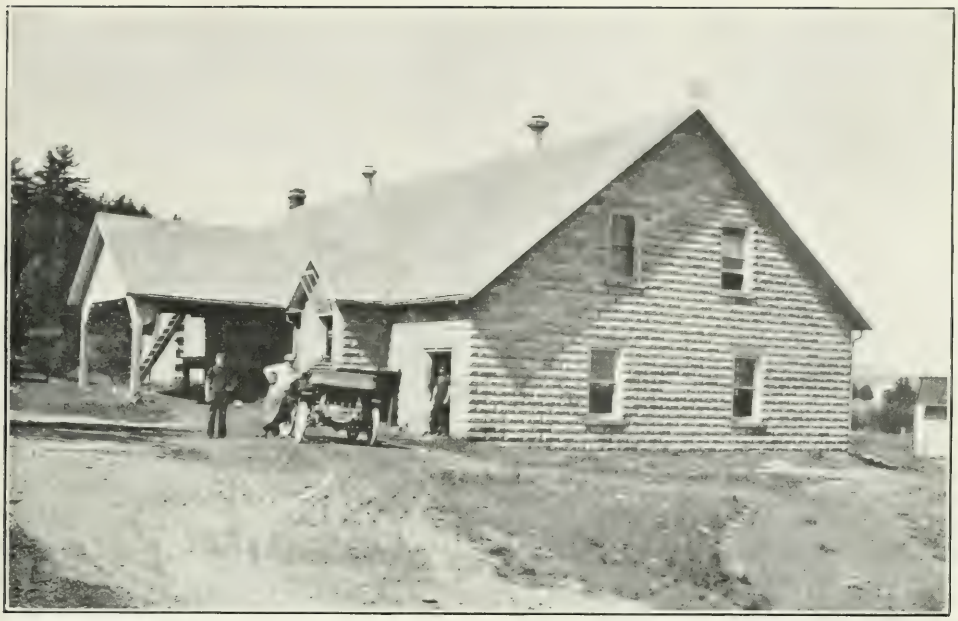

Fig. 1.

Fig. 2.

Two Central Ontario Cheese Factories with cool Curing Rooms.

1. Sidney Town Hall, Hastings County.
2. Massassaga, Prince Edward County.

REGARDING BREAKAGE OF CANADIAN CHEESE BOXES.

We find at the different ports in Great Britain as well as in the warehouses of the importers, boxes coming from certain districts and bearing certain well-known marks, delivered in *good* condition, while we see other boxes bearing other brands, which have been handled under exactly the same conditions, and delivered at the same time, a high percentage of which are delivered in a *broken* and *ragged* condition. We again find boxes well made and of good quality but which do not fit the cheese, being too large in diameter or too deep. Such misfits are very liable to be broken, and if the cheese is more than a trifle higher than the box, the cheese itself is liable to be damaged before being delivered at the retail shop. These two faults, poor quality of boxes and badly fitted boxes, must be remedied at the factory. The cargo inspectors in Great Britain find a considerable percentage of the cheese discharged from the holds of the various steamers 'roped,' showing that they had been broken before being stowed on the steamer at Montreal, Quebec, Halifax, St. John, or at American ports. After cargo has been broken into at the British ports, a considerable percentage of boxes are broken during the rush work of discharging cargo. Nearly if not all of this damage is done in the holds of the steamer. Where 80 to 100 pound cheese are stowed six or seven high, the average dock labourer, unless under constant supervision, prefers to get the top cheese down by any method except carefully lifting it down. This is how and where the bulk of the cheese boxes are broken at the British end of the line.

Very few boxes are broken after leaving the hold of the vessel, and what breakage does occur can hardly be prevented under the present conditions of discharging cargo at the ports of Glasgow, Bristol, Liverpool and Manchester. As a rule we find a smaller percentage of breakage at London, chiefly due to the mechanical appliances used for discharging and conveying boxes direct from the ship's hold into the warehouse at the Surrey commercial docks.

Donald's patent ship elevator-conveyor, manufactured by Messrs. Rowson, Drew & Clydesdale, Ltd., London, is used by a number of shipping and railway companies where rapid loading and discharging of cargo is desired. This elevator-conveyor works continuously and consequently it loads or discharges more rapidly than cranes or derricks which work intermittently. The ship's winch drive can be utilized to work this elevator-conveyor if electric power is not available.

With properly made and well fitted boxes to begin with, with proper care and close supervision where manual labour is necessary, and with mechanical and up-to-date appliances where possible for loading and discharging, breakage and damage to cargo would be reduced to the minimum.

A. W. GRINDLEY.

REPORT OF THE LIVERPOOL AND MANCHESTER CARGO INSPECTOR (MR. W. CARTER).

LIVERPOOL, March 31, 1912.

I herewith beg to submit the following report for the year 1911-12:—

CHEESE (540,553 BOXES).

I am sorry to say there has been little or no improvement in the condition of cheese boxes landed here or in Manchester. There is still the same high percentage of broken and tied boxes, and the following are the chief causes of this: The poor quality of many of the boxes used, especially those from the Quebec factories, cheese packed in badly fitting boxes, careless and rough handling, the growing tendency to increase the weights of cheese, which means that the dock worker will not lift them but in many cases throws them down from six or seven high, and the hurry and rush with which cheese are now landed.

The approximate average percentage broken and tied boxes from both winter and summer ports is as follows:—

	Tied.	Not Tied
Manchester Liners from Montreal..	19 p.c.	12 p.c.
Allan Line from Montreal..	19 "	11 "
" Halifax (winter service).. ..	7 "	3 "
C.P.R. Line from Montreal and Quebec..	17 "	11 "
" Halifax (winter service).. ..	25 "	15 "
White Star-Dominion Line from Montreal...	19 "	12 "
" " " Portland, Me. (winter service)..	20 "	13 "

The bulk of this damage is found in certain marks that are nearly always in bad order, and it is a remarkable fact that, while some brands are in bad condition, others from the same hatch and receiving exactly the same handling are in very good condition.

In spite of the exceptionally warm summer, and the delay in transit during the railway and dock strikes last August, I am pleased to say that there was very little complaint re sweated cheese. During the strike the steamship companies did everything possible to prevent any damage to perishable goods by opening hatches, keeping fans going, and watering the quay floors to keep them cool.

There are still a few cheese coming forward without either shipper's or factory brands on them; also complaints about cheese being cut and pilfered.

BUTTER (22,097 PACKAGES).

There was a great increase in butter shipments to this port, and while the butter itself was in excellent condition, not a single package was sacked and many of them were more or less dirty. Temperatures were satisfactory, averaging about 20°; refrigerators were kept clean and dry, but I would like to see more dunnage used by the shipping companies when stowing butter.

There was also a decided improvement in clearing butter from the quay after landing, much of it being taken away within twenty-four hours.

EGGS (3,566 CASES).

These arrived in good order and condition generally, the only complaint being that some of the cases were insecurely fastened, which led to more or less pilferage.

FROZEN MEATS (13,419 PACKAGES).

A big increase over last year, and though there was a great improvement in the packages (especially the crates), there is still a big percentage that land broken. What is wanted is a stronger, heavier crate or case.

BACON (28,831 BOXES AND 120 BALES).

Practically all boxes landed in good order and condition, but bacon packed in bales (Danish style) is very liable to get badly knocked about.

TRIPE (2,660 BAGS).

These landed in good order and condition.

CANNED MEATS (2,880 CASES).

These were Prince Edward Island produce and landed in good order. They all consisted of canned beef and mutton.

PEARS (22 BARRELS).

These landed in very bad condition. They were Bartletts, of excellent quality, but they must have been fully ripe when packed for they were almost worthless when landed here. They should have been carefully packed in boxes, for pears of this class, full ripe, would not stand the pressure of being packed in barrels.

PEACHES (380 CRATES).

This consignment of peaches landed in excellent order and condition. They were sound, well packed and of very nice quality. They were forwarded to London soon after landing, and I believe gave every satisfaction there.

APPLES (370,662 BARRELS) ONTARIO AND NOVA SCOTIAN.

Re condition of the fruit, this has not been a satisfactory season, particularly for Ontarian apples. The first few shipments were in good condition, but after them we got several shipments of fall apples that showed a lot of waste, and got worse very quickly after being opened a day or two. Most of this waste was a peculiar dry rot, and apples from the United States were affected in exactly the same way.

When the winter varieties began to arrive this particular waste gradually disappeared, and we got some good sound apples till January when they began to show a lot of frost, and most of them have been showing it since. One peculiar feature was that one week we had a shipment that were nearly all badly frozen, and the following week another shipment that was only slightly touched.

The quality of the Ontario fruit has been generally good, and I have received but few complaints *re* faced or topped apples, and no complaints *re* apples being wrongly described. With the exception of Golden Russets and Fallawaters, Nova Scotian apples have been decidedly small, and many branded No. 1 would have been more truly described if marked No. 2, while most No. 2's have been very small.

Both Ontario and Nova Scotian barrels have been satisfactory, nothing but sound strong packages being used, though the Nova Scotians are not so good or well made as those from Ontario.

APPLES (9,334 BOXES).

While the condition and quality of these were similar to the barrels, the packing and package left a lot to be desired. They were put up in a common box, badly sorted, and none of them were papered. It seems that some Canadian packers will not take the trouble to pack box apples properly, which is a great pity, for I am certain that there is a good market here for well graded and well packed box apples such as Spies, Kings, Snows, &c.

CANNED APPLES (3,644 CASES).

These all landed in good order.

CRANBERRIES (5 BARRELS).

This small shipment was in good condition. They realized $5.22 per barrel, and would have done a lot better if they had been packed in boxes instead of barrels. There is a fair demand for box cranberries here, and this market could do with a small regular supply.

POULTRY.

Not a single case arrived this season.

I beg to offer the following suggestions with a view to improving carrying conditions, &c., of Canadian produce.

That when possible no provisions should be carried in the hatch immediately aft the ship's engine room, as in several ships this hatch has proved to be very much hotter than the others.

That the shipping companies should be asked to provide and use more dunnage with butter and cheese.

That where possible cheese should be stowed all together and not mixed indiscriminately with other cargo as at present.

That, with the present day mechanical appliances the shipping companies should be asked to provide something more up-to-date for landing cheese, as the methods in use at present are rather crude.

ACKNOWLEDGMENTS.

For the courtesy and assistance of all officials of the various shipping companies, I am again indebted, and here tender my sincere thanks.

W. CARTER.

REPORT OF THE GLASGOW CARGO INSPECTOR (MR. JAS. A. FINDLAY).

GLASGOW, March 31, 1912.

The Canadian import season of 1911-12 suffered considerably from labour unrest amongst transport workers. In the early part of the season, a sailors' and firemens' strike contributed difficulties to the maintainance of regular sailings and this was followed by sectional strikes amongst dock labourers, which occurred intermittently for some months, resulting in a stoppage of discharging or loading operations for a few hours or odd days at a time. The increasing demands of the workers finally culminated in a general strike with a complete cessation of labour at the Glasgow harbour for four weeks in January and February, during which period steamers arriving were unable to be discharged or only partially so, and no sailings to Canadian or United States of America ports were possible. Owing to this strike apple shipments suffered serious deterioration from being detained on board, and at moment of writing a universal strike among British coalminers, which has existed for three weeks, is gradually paralysing trade in all directions and contributing to low prices for Canadian apples.

Apart from transport difficulties, a review of the present season presents several satisfactory features, notable among which are increased importations of butter, eggs, apples and canned apples, and the record price which has prevailed for Canadian cheese throughout the season. This high level was due to an unusually dry summer both in this country and England, curtailing the pasture and crops generally in the latter country, though the heavier soils of the cheese manufacturing districts in Scotland were hardly affected, and the Scotch cheese make was almost an average one. In England there was an abnormal shortage and English buyers drew largely on the Scotch supply thus creating a greater demand for Canadian cheese here than might otherwise have existed. Cheese importations notwithstanding show a decrease of over 6,000 boxes to Glasgow, and almost 8,000 to Leith compared with last season.

The condition on arrival continues satisfactory, an almost total absence of heated cheese and only slight evidence of grease on skins of some parcels being aparent. In considering the quality of Canadian cheese a gratifying feature is the lack of insistent criticism and I am glad to state that only in isolated cases has any serious unfavourable feature been reported. This general satisfaction does not mean that the quality was faultless for evidences of former errors were apparent: several parcels were green on arrival and discrepancies in marked weights with actual net

weights still exist, but the active demand at satisfactory prices inclined dealers to attach less importance to faults which evidently were not affecting sales. However, the prevailing opinion is that Canadian cheese were very even in quality and that good work is being done by the dairy instructors in Canada.

Boxes.—The increasing percentage of damaged cheese boxes on arrival is a condition which must sooner or later bring about some concerted efforts for improvement. Undoubtedly the primary cause of much of the breakage lies in the quality and character of the box and the matter for wonder is not that some parcels come with 25 to 50 per cent tied and broken, but that so many boxes arrive intact in view of the amount of handling, the slimness of the boxes and the irregularity of fit. The large proportion of damaged boxes would warrant the department taking steps to recommend to factorymen a box of certain weight and strength according to the weight of the cheese, for undoubtedly the initial cause lies there. Boxes from the Ingersoll district are amongst the strongest and best fitting packages and they always show a very small percentage compared with others.

The points in transit where breakage takes place (it being understood that all tying of boxes is done in Canada) may be stated as about equally divided between ports of loading and discharging. Under the system of discharging at this port by the Allan and Donaldson lines, workers fill wooden or iron tubs with cheese in the holds and these are hoisted ashore by cranes and then emptied by men in the sheds. This season discharging has not been accomplished as carefully as formerly owing to discontent and wilful carelessness amongst the workers. Moreover the size and shape of the tubs encourage breakage as they are too small for the number of cheese loaded and the men are inclined to drop cheese from edge of top to bottom of tub. I have discussed the subject of an improved tub or means of discharging here and this is being considered by the shipping companies; meantime, it has been suggested that some mechanical system of discharging be adopted here for cheese and small sundry cargo, but the idea is not considered feasible in view of the small shipments of cheese per steamer, the fact that they are stowed in the same holds with other cargo, and the loss of time and extra expense incurred in erecting and dismantling an elevator-conveyor. Importers here, however, would be glad to lend support and backing to the adoption of any scheme calculated to minimize breakages.

BUTTER.

Butter shipments show an expansion. There were 4,059 boxes and 13 addressed packages imported, as against 1,256 boxes and 7 tubs last year. Of this total 2,841 boxes were carried at a temperature of 15 to 25 degrees and the remainder from 35 to 40 degrees, the bulk at the latter temperatures being stowed with bacon. Owing to heavy shipments of United States bacon in refrigerators, it frequently happened that a spare chamber for butter was not available in some of the steamers. With the exception of about 700 boxes, all were lifted from the quay within two days of landing (788 were lifted on day of landing, 2,214 on day following, 365 second day, 226 fifth day, 230 ninth day and 236 tenth day). The last three lots ranged in temperature from 52 to 58 degrees at time of delivery. All packages were unsacked this year.

Condition and quality.—The condition on arrival offers no grounds for complaint, but the quality while being very fair was not generally so fine as last season; several parcels were choice, but quite a few were weak and one or two parcels came to hand too heavily salted for this market and were objected to on that account.

EGGS.

Canadian eggs again made their appearance but only to the extent of 590 cases. Prices fluctuated considerably during the season but on the whole eggs have been a scarce commodity. The quality of Canadian imports was satisfactory.

BACON AND MEATS.

The total of bacon imported is about 100 less than last year. This may be attributed to the lack of shipping facilities during the four week dockers' strike here. Shipments were landed in good order and Canadian bacon continues to receive satisfactory demand, and, provided prices were suitable, larger shipments would be welcome.

Canned Meats.—Arrivals under this heading show 409 cases of jellied veal—a slight increase over previous season—which was of a good quality.

Frozen Meats.—Show a very decided shrinkage, only 4,196 boxes were landed this year against 10,900 packages last year. Shipments were carried at a temperature of 20° or lower and landed in satisfactory order.

CANNED APPLES.

A considerably increased import of canned apples is observed, 38,135 cases arriving at Glasgow and about 10,000 at Leith, showing an expansion of about 7,000 cases to Glasgow. The landing condition was generally satisfactory but the tops and bottoms of cases might with advantage be constructed of thicker wood, the same as some of the U.S.A. packages which arrive in better condition for this reason. It is noticeable throughout period of shipments that odd cases are pilfered of one or two tins at some point in transit.

The quality was subject to more severe criticism this year than usual. From what I can learn early shipments have given satisfaction but later arrivals have given rise to several complaints regarding over-softness of fruit, which, in some cases, is breaking down into the liquid. In several of the brands it is obvious that over-ripe fruit was used to make up their cannings as several are complaining of the fruit being brownish red in colour and soft, and it is evident that this year's canning is not so satisfactory as former years.

In addition to the above totals we received 3,114 boxes of Nova Scotian canned apples which were only fair in quality and inclined to be soft, and from Ontario 254 cases of canned corn and 197 of peaches. Fault was found with the quantity in the tins of peaches as a considerable space is found unfilled when opened. Even though the required weight was contained in the cans, which is not admitted, this practice detracts from an appearance of completeness of the package.

APPLES.

The Canadian apple season of 1911-12 was one of large shipments from Ontario and Nova Scotia, but viewed as a whole the season has been of a disappointing, unprofitable nature to those handling at this end as, with the exception of a few parcels of coloured fall varieties which realized good returns, prices generally were moderate.

The course of prices was dominated in the early season by unusually heavy crops of exceptionally well grown fruit from England which competed with shipments of Ontario summer apples followed by large shipments of Nova Scotia Gravensteins, Kings, Blenheims, &c.

ONTARIO SHIPMENTS.

Ontario summer apples and early fall varieties were of good size, clean skinned and good colour, and as a rule well graded and arrived in sound condition. The clean appearance of this season's apples is evident testimony to increased care in spraying,

pruning, &c. General satisfaction was expressed at this period but from the advent of the winter varieties onwards, the dominant note has been one of disappointment on account of their lack of standing power. Climatic conditions during growth negatived those qualities in Canadian winter stock which have contributed so much to their popularity in this and other markets. Shipments from the middle of November onwards arrived showing traces of being over-mature and end of November and December arrivals resulted in very serious loss to all who 'stocked' beyond immediate use. Spys, a universal favourite, were conspicuous for scarcity, poor quality, over-ripeness and chipped condition, but all winter varieties were similarly deficient in keeping quality, and though at time of arrival some were in sound order, they did not possess the usual crisp, firm characteristics noticeable in long keeping varieties, but were soft and easily bruised. Retailers state that latest arrivals of Spys, Baldwins, &c., showed material shrinkage and decay every day. These conditions contributed to decreased demand and lower prices. Greenings were of exceptionally fine stock, being clean and bold fruit. Golden Russets on the contrary were poor quality, green and poor size. Baldwins and other winter stock were clean and fair size but these qualities were lost sight of in their non-keeping properties. Several lots of later arrivals were affected by frost, one consignment being almost worthless. Ontario shipments consisted of 153,482 barrels, 103 half barrels and 31,776 boxes. These figures show increases from last year of about 72,000 barrels and 16,446 boxes.

The grading of barrelled stock this year was on the whole fairly satisfactory; occasionally poor parcels opened out, as for instances a number of packers in South Bay district whose grading was farcical, and from the continued shipments of several individuals from the same district it would appear that a united effort to evade the 'Fruits Marks Act' had been agreed upon. The No. 1 grade in many cases was only ordinary and the No. 2 only equal to No. 3.

Boxed apples in common with barrel stock of winter varieties suffered in criticism on account of non keeping condition but were of fair quality and clean. No. 1 grade was of good size in most packs, but No. 2 grades as a rule were under-sized and green for Spy and Baldwin, and the opinion prevails here that there is room for considerable improvement in the quality of pack of the bulk of Canadian boxes.

Box packers would be well advised to pack only fancy and No. 1 grades and to ship No. 2 grades in barrels, as the box trade is really a fancy trade. Frequently I saw No. 2 boxes realize only equivalent prices to No. 2 barrels, and on several occasions not so high, and if the choicer fruit was relieved of the competition from these lower grade boxes, higher prices would be secured. Some of the later arrivals of boxed Greenings and Baldwins were in a very decayed condition.

NOVA SCOTIA SHIPMENTS.

Nova Scotia contributed a record quantity to the Glasgow market, viz.: 153,219 barrels and 3,394 boxes. Such heavy consignments from this quarter coupled with the quantities from Ontario created an over-loaded market with declining prices.

The early arrivals—Gravensteins—were clean, fair colour and size, and landed in good order, except in the case of one steamer delayed on the way. Later arrivals of Kings, Blenheims, etc., were generally of excellent quality, the Kings taking the place created by the scarcity of this variety from Ontario, and on this account were decidedly more popular than in years of normal supply from the latter province. Winter varieties suffered in common with apples from other quarters because they would not keep. Baldwins as usual were smaller than those from other sources. Fallawaters were a feature being choice, clean and large fruit. In Scotland Nova Scotian apples generally (except Gravensteins) are considered of secondary quality to Ontario apples and except when the latter are very scarce are unlikely to bring so much money. This

condition is influenced by the firm character of the apples and their woodiness of flavour, also by the unpopularity of the barrel due to its rough appearance, small size and difficulty in opening and closing without damage.

It has been alleged that Nova Scotian fruit was overpressed this season but from inquiries I can only find a few odd complaints, and these referred to Kings, the majority expressing satisfaction with the improvement in landing condition compared with a few years ago.

Boxes.—The bulk of the boxes were of the 'Hillcrest Orchards' brand, the Gravensteins being of choice quality in size and colour. King's were likewise good; Wageners good but did not keep. This package could be profitably utilized for larger shipments of choice graded Gravensteins from Nova Scotia. A shipment of another brand (Waterville Fruit Growers) arrived but they were of poor size and quality and realized corresponding prices.

British Columbia Fruit.

Imports from this quarter consisted of 2,407 boxes apples and 648 boxes pears, showing an expansion over last year. Red varieties of apples were irregular and inferior in quality and grade to last season. The outstanding variety was Newtown Pippins which were of satisfactory size and choice quality; but Jonathans were poor, McIntosh Red irregular in size and deficient in colour, Cox's Orange inferior and Spys poor both in colour and size. The condition of arrivals was satisfactory. The pears also arrived in sound condition except Lawrence variety which were over-ripe.

ONTARIO PEARS.

The quantity of pears imported from Ontario shows a large falling off from previous season, there being only 3,764 cases and 62 half barrels in cold storage and 27 barrels in ordinary storage, the bulk of the latter being in poor condition, decided decay showing. The case is the most suitable package for this fruit.

The pears generally were of fair quality and Bartletts made very satisfactory prices. The bulk of arrivals came to hand in sound order and very much larger quantities could be successfully distributed from Glasgow.

General Remarks.

I have to report some improvement in facilities at Glasgow for marketing apples, the Corporation having built a saleroom which is used by a few firms who are not members of the Central Commercial Saleroom, so that all apples arriving here are now sold under the collective system of auctioning, which tends to a higher level of prices than under the old system of individual sales proceeding simultaneously. Transport facilities are on the usual lines of former years except for an addition to the Allan line fleet between this port and Montreal, viz. SS. *Scotian.* This steamer, in addition to extensive passenger accommodation, has large cargo and refrigerator space. As previously indicated discharging operations were conducted by dock labourers in a more careless manner on account of the continued spirit of unrest but with the termination of the strike a better feeling prevails and it is hoped the men will be more amenable to the desires of foremen and exercise greater care in discharging perishable cargo.

JAS. A. FINDLAY.

REPORT OF THE BRISTOL CARGO INSPECTOR (CAPT. H. E. SHALLIS).

BRISTOL, March 31, 1912.

The imports to the Port of Bristol the last year have been very satisfactory throughout, all products, with one or two exceptions, showing a good increase on the previous year.

CHEESE.

Of cheese we have received about 390,000 boxes, a decrease of about 48,000 boxes from last year due to seasonable conditions. The merchants report that they are without any great cause for complaint in the way of heated cheese during the excessively hot weather, or of green cheese coming to hand in the fall. Instances have occurred of defects from both causes, the immature cheese being chiefly from the Quebec districts, but this year has shown a decided improvement in this latter respect and also in regard to the question of weights. In the early part of the year there seemed good prospects for the new season, but a little later the merchants were disturbed by the announcement of the Reciprocity Treaty, and they therefore withheld from buying just at a time when they usually enter into contracts with wholesale and retail dealers. On top of this came the exceptional drought which lasted so long and from which the English make suffered heavily, falling off from one-half to two-thirds. This resulted in big jumps in prices from about 54 shillings early in July to 60 shillings and 64 shillings in August, and from 68 shillings to 73 shillings in September for Canadian make, while English ranged from 80 shillings to 100 shillings In November Canadian prices ruled lower, but the English prices still remain high and appear likely to for some time yet.

Boxes.—One matter may be improved upon, that is for the shippers to be more particular in the marking of the boxes One of the steamship lines alone reckon that they have carried over 1,500 boxes this past year without any shipping marks, and at times great difficulty is experienced in disposing of these unmarked cheese.

Breakages.—It is to be regretted that in the matter of broken boxes we do not seem to make the slightest improvement, in fact, if anything this past year the results are worse. In the first place the wood is thin and brittle and the boxes are roughly fastened together, the lids are made up in either three, four or five pieces, and the rim around same often insecurely nailed. With these original defects they are unable to withstand the continuous handling from the factory to destination. Boxes from the western districts are much better than those from the east and they land in better condition although the cheese in them are usually heavier. Some factories still persist in placing cheese in any sort of box irrespective of its size so long as they can get it in, and we have numerous instances of cheese being either too small or too large for the box, which causes breakage. Unfortunately of late in addition to the many other difficulties we have to contend with may be added an increasing carelessness on the part of the men in handling the boxes, attributable to the labour unrest; increasing instances have this year been particularly noticeable and to check a docker for rough handling or damage to a package is often rewarded by abuse. The unloading of boxes by mechanical appliances has been considered, but unfortunately at Bristol we are handicapped from using any up-to-date methods as our shipments are all of irregular quantities, causing at the same time an irregular system of stowage, and this is where London has the advantage in handling the cargoes, the ships carrying large quantities each trip. From my own observations and many opinions I have received from dock

and steamship officials, stevedores and provision merchants, the first remedy should start at the factories in the way of strong, well made, well fitting boxes (or crates similar to the New Zealand package), capable of withstanding the constant handling; then a better system of delivering the shipments and loading the same, in which the shippers and shipping firms could materially assist, and if the loading and unloading could be done by mechanical means in preference to the constant handling less damage would occur with a welcome decrease in the costs of repair all round.

BUTTER.

We have received in all about 60,000 boxes, a considerable increase on the past four years, which arrived here in first class condition. One or two merchants are of opinion that the quality altogether has not been up to usual standard, but on the other hand others speak most favourably of their consignments. The butter business also was affected by the widespread drought, and prices if anything are relatively higher than for cheese. All shipments came along in refrigerator chambers and on being landed were hurried forward, especially in the hottest weather, to the cool chambers either at the docks or the depots of the respective merchants in town. With very few exceptions none of the boxes sent forward this year were sacked.

MEATS.

Our imports of Canadian bacon amounted to 3,700 boxes, showing a substantial increase over last year. The bulk was sent forward to London, though quantities were retained here. The condition of the meat was excellent and much appreciated. The boxes were good, though none too strong, and a band around the centre would be an improvement. Nearly the whole of the shipments were carried by the Royal Line, which steamers being speedy are well suited for the carriage of these mild cured meats to be landed here for early consumption.

EGGS.

We received 200 cases only from Canada and this trade appears entirely lost, our imports being from Ireland and the continent.

PEACHES.

In the latter end of September we received a consignment of 1,716 boxes of peaches. The fruit arrived here in the best of condition, the temperature having been well maintained on the steamer. With the exception of a small quantity retained here in Bristol, they were sent through to London, leaving the dock in ample time for the market the following morning, but owing to some mistake on the part of the railway they did not reach their destination till mid-day, losing the market and finally not fetching the prices they otherwise would have done, only realizing 3 to 4 shillings per box. The peaches which were sold in Bristol realized 4 shillings, 6 pence per box. There is a good opening for this trade and it is to be hoped that the unfortunate incident of last year will not deter further shipments. Opinions are still expressed that the above price is high and that nothing over 4 shillings a box would call for a big demand.

HAY.

In dealing with this article it may be mentioned that though a trade has been kept up for some years, our imports as a rule are not large, supplies coming chiefly from the surrounding counties, but this year owing to the long summer and drought a big call has had to be made from abroad, Canada being the chief supplier. Prices have ruled high, the freight alone, at the time of the biggest demand, say end of

September and beginning of October, running from 37/6 to 40 shillings per ton from place of shipment. There are no storages for hay in Bristol so shipments have to be in small quantities, say 100 to 200 tons per ship, to insure quick disposal. The quality mostly in demand here is 'Clover Mixed.'

APPLES.

This year we have had a big increase, our totals amounting to about 42,000 barrels, the bulk of which were from Nova Scotia. The varieties have been less in number than usual and were chiefly Baldwins, Spies, Ben Davis and Golden Russets. While the early shipments came along in very good style, one or two of the later ones were more or less affected by the frost, but taking it all round good prices have been realized, especially in the case of Golden Russets which have been good all through and sold at 21 to 22 shillings per barrel. The imports from Ontario, which were smaller than usual, were all sent through to South Wales and from reports received were of a very satisfactory nature and fetched good prices. The majority of the Nova Scotian apples also went through to Cardiff, but it is intended next season to hold the sales at Avonmouth, and so make that port the distributing centre, which will prove a big saving to the merchants. There has been no instance this year of 'falsely marked' barrels, but a number of instances where the grading has not been all that could be desired. It was gratifying to note that in the past two years the apples shipped here show a considerable improvement in quality, for at one time it looked as if the trade would fall off at this port owing to so many inferior shipments, but now a well maintained quality will tend to good results, as already I learn of merchants making preparation for increasing their business next year. Some of our English growers are waking up and taking a keen interest in the apple growing industry which has greatly fallen off for years past, and in this district and surrounding counties they have a good field for their work, but it is not expected that it will affect our Canadian imports.

Thermographs and Cooled Air Chambers.

As in previous years thermographs were placed on board all the steamers during the season, in refrigerators, cool air chambers and holds, and all showed good working results, the temperatures having been well maintained. This year has especially shown the great benefit derived from cool air chambers for it may be said that owing to the great heat on both sides of the Atlantic they proved the salvation of many lots of cheese that would otherwise have suffered considerably.

Acknowledgments.

I again thank all the officials of the various firms who have dealings with the Canadian trade and with whom I am frequently in converse for their courtesy at all times and for expressions of opinion on any matter for the benefit of the trade.

H. E. SHALLIS.

REPORT OF THE LONDON CARGO INSPECTOR (MR. THOS. E. DAVIS).

LONDON, March 31, 1912.

Herewith I beg to submit my anual report on the Department's work at the Port of London and district for the year ending March 31, 1912.

GENERAL ROUTINE OF WORK.

My chief duties involved strict attention to the manner of stowage and discharge of cargoes and the despatch and handling of same during subsequent delivery to warehouses, rail, or merchants.

In the matter of stowage, the main point of inspection has been directed to the proper dunnage of commodities, and seeing that the best facilities are employed to assure adequate ventilation for ordinary stowage and standard temperatures in cooled air and refrigerator chambers. In respect to the latter, the thermographs placed in chambers have been of material help and guidance.

FREIGHTS.

During the past season my reports have covered the arrival of 130 vessels, and the inspection of cheese, bacon, butter, eggs, peaches and apples.

In connection with the above it has been necessary to follow goods to railway depots, warehouses, markets and merchants within a reasonable area from my centre before making an individual report on the out-turn of each steamer.

CHEESE.

From inquiries and information received from the principal merchants, the shipments of Canadian cheese received show an improvement both in condition and quality compared with a few years back. From reports received the quality of the various factories has been more regular, and there has been a conspicuous absence of discoloured and mixed curd as was occasionally experienced before the amendment of the Act.

The shipping of green cheese is condemned, resulting as it does in shrinkage and material loss. Complaints from time to time are to hand of indistinct marking of weights on boxes leading to vexatious mistakes, and it is the general opinion that it should be compulsory to have weights stencilled clearly on every box with date of make.

CHEESE AND BUTTER TRANSIT.

It is an acknowledged fact that the facilities for handling cheese at the docks here are such that the percentage of broken boxes is brought to a minimum, but in regard to consignments placed on rail for the provinces, the slack handling of packages has repeatedly given me cause to lodge complaints with the several railway companies, with satisfactory results. Two years ago many parcels went away in low trucks with tarpaulin covers as the only protection against the sun. Now, box trucks are used, affording better stowage, and although the percentage of broken boxes is very high after rail transit, the breakage is due mainly to shunting.

BUTTER.

The shipments of Canadian butter to this port in 1911 were greater than for four years past. The boxes came unsacked but the worst fault is the lack of uniformity in the package. A fifty-six pounds net package is recommended.

BACON AND EGGS.

The ocean carriage and condition on arrival has given every satisfaction.

APPLES.

Ontario apples were limited to a few hundred lots, but the totals from Nova Scotia surpass all records. Much trouble has been experienced through the over-ripeness of coloured varieties; and with strike troubles provincial orders have been limited, although the actual London demand has been well maintained. Another feature was the large number of transhipments for the continent compared with those of last season.

ENGLISH APPLE-GROWING ACREAGE.

From the compiled tables it will be seen (Table I) that the acreage under apples in Great Britain tends on the whole to decrease rather than increase. Table II shows that it is chiefly in the cider counties of Worcester, Gloucester, Somerset and Devon, that the decrease is taking place. This is probably due to the gradual elimination of the old and worn out orchards that were planted so extensively about sixty years ago. Middlesex also shows a marked decrease in 1911, but this is doubtless attributable to the extension of the residential districts around London.

Hereford alone of the cider counties shows an increase, but from a report which the Board of Agriculture has received from one of their inspectors, it appears likely in Worcester also an increase will be recorded in the near future. A report on the position in the Isle of Ely district of Cambridgeshire indicates that an increase in the acreage under apples is taking place, more particularly in the outlying parishes. This is also the case in Worcestershire, and it is officially stated that the increased acreage is chiefly in the hands of the newer and better educated type of grower.

TABLE I.

Acreage under Apples in Great Britain, 1907-1911.

Year.	England.	Wales.	Scotland.	Great. Britain
	Acres.	Acres.	Acres.	Acres.
1907	168,575¾	3,114¾	952½	172,643
1908	168,762¼	3,087¾	901½	172,751½
1909	169,296¾	3,023¼	847¼	172,761,371
1910	168,302½	2,932½	795½	172,030½
1911	166,522¾	2,841¾	789¾	170,154¼

TABLE II.

Acreage under Apples in Certain Counties, 1907-1911.

Year.	Hereford.	Worcester.	Gloucester.	Somerset.	Devon.	Kent.	Middlesex.	Cambridge
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1907	24,196¾	12,601¼	13,412½	25,231	26,984¼	12,394¾	963¾	1,761
1908	24,448½	12,931½	13,086¼	25,080	26,575½	13,089¼	1,028	1,921¼
1909	24,828¼	13,486	13,311½	24,950¼	26,567½	12,850	1,063¼	2,253¼
1910	24,830½	13,600¼	12,789½	24,765	26,453	13,358¾	1,114½	2,345¾
1911	24,975½	13,280¾	12,753½	24,107¾	26,071	13,733½	844	2,416¾

Acknowledgments.

I am much indebted to shipping companies, merchants and officials of the Board of Agriculture for useful help during the year.

THOMAS E. DAVIS.

THE BUTTER TRADE.

On this continent and in Europe the summer of 1911 was characterized by excessive heat and prolonged drought which naturally lessened the production of milk and made high prices for dairy products during the season of non production inevitable. As soon as the disastrous effect of the abnormal weather conditions began to be realized the price of butter in the world's greatest market—the United Kingdom—began to advance and soon became sufficiently attractive to draw regular shipments from Canada and from the United States. By the autumn it was apparent that the general world supply of butter was very short and prices began to soar. On January 1st the American Warehousemen's Association reported that the quantity of butter stored in thirty-eight cold storage warehouses in the United States was 18,639,100 pounds compared with 45,316,800 pounds one year previous, and such a tremendous shrinkage in the stocks of stored butter naturally caused a firmer market. In New York one advance followed another in quick succession until January 17th when the record figure of 42 cents was reached for creamery specials. In Montreal the top wholesale price reported was 36 cents which was quoted on February 7. The range of prices throughout the twelve months was probably unprecedented. In May specials sold in New York for 22 cents and for 42 cents in January. In Montreal best creamery sold for 20½ cents in May and for 36 cents in February.

In the twelve months ended February, 1912, Canada and the United States combined exported 8,068 tons of butter and imported 1,864 tons, showing an excess of exports over imports of 6,204 tons. In the previous year the combined exports were 3,444 tons and imports 1,017 tons showing an excess of 2,427 tons exported. Turning to the United Kingdom, the greatest butter importing country in the world, we find that her imports in the same two yearly periods were as follows: In 1911-12, 238,108 tons and in 1910-11, 248,511 tons, showing a decrease in the past twelve months of more than ten thousand tons, notwithstanding the increased quantity received from North America. From these statistics it is evident that the high prices that prevailed in this country and the United States during the winter months were not caused by any shortage in home production because, as shown above, both countries had a surplus, but that they were the result of a deficiency in the other butter exporting countries and the consequent creation of a world wide demand which was not satisfied until prices everywhere had risen to a point where the consumption of butter was sufficiently curtailed to equalize supply and demand once more and thus automatically prevent any further rise in values.

The high cost of butter in the United States was, of course, a fine thing for the manufacture of oleomargarine and stimulated its production wonderfully. For instance, in the month of February the Chicago district produced 7,892,659 pounds and in March 6,725,011 pounds. Of the latter quantity 229,051 pounds were coloured and paid the tax of ten cents per pound.

Butter Transportation.

The special refrigerator car services for the carriage of butter to Montreal and Toronto, which are arranged for by this Branch, were again in operation from May 16th to October 13th, and this division maintained the usual supervision of the cars both at country shipping points and at the terminals in Montreal and Toronto.

Our agreement with the railway companies provides that the Department shall guarantee a certain amount of earnings each time a car is run over a route, and that

when the total revenue earned by one of these cars falls short of the amount of the guarantee, the deficit shall be made good by the Department. Under this plan shippers may forward any quantity regularly each week for which they pay only the less-than-carload freight rate and their butter is carried at a temperature which protects it from deterioration.

Last season four new routes were established on the Grand Trunk Railway in Ontario with a common terminus in Toronto, namely, from St. Thomas, from Dunnville, from Orillia and from Kinmount Junction. One new service was also started in Quebec, namely, from Matapedia to Montreal via the Intercolonial Railway.

During the past few years the cost to the Department of maintaining these services has been decreasing owing to the larger quantity of butter carried.

The total number of cars with butter which were inspected at Montreal in the season of 1911 was 1,106 as follows: At Grand Trunk railway terminals 555, at Canadian Pacific railway terminals 447, and at Canadian Northern Quebec railway terminals 104. These cars delivered a total of 347,828 packages weighing over twenty-two million pounds. The average temperature of the butter when unloaded from the cars was 55° and the average quantity of ice in the bunkers was approximately 1,000 pounds per car.

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS, AT MONTREAL AND AT LANDING PORTS IN GREAT BRITAIN.

Average Temperatures of Creamery Butter at Shipping Points in the Province of Quebec for seven years, 1905 to 1911 inclusive.
J. N. Lemieux, Inspector.

Name of Proprietor or Manager.	Post Office Address.	County.	Marks.	Railway Shipping Station.	Railway.	Years.						
						1911.	1910.	1909.	1908.	1907.	1906.	1905.
						Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg,
J. L. Côté	St. Guillaume Station	Yamaska	W P 4	St. Guillaume	C.P.R.	41·5	48·4	41·0	.....	.....	.....	50·3
Jos. B. Grenier	Ste. Rosalie	Bagot	Iris	Ste. Rosalie	C.P.R.	41·5	52·5	47·8	48·4	49·5	.....	.....
C. E. Duquette	St. Hyacinthe	St. Hyacinthe	B C 23	St. Hyacinthe	G.T.R.	42·0	51·6	54·5	58·5	.....	.....	63·0
Forget & Parthenais	Ste. Anne des Plaines	Terrebonne	F P 1	Bruchesi	C.P.R.	43·0	46·0	44·4	47·0	50·0	49·0	....
C. E. Lamarche	St. Esprit	Montcalm	HBR 49	Ste. Julienne	C.N.Q.R.	43·0	42·2	41·0	57·4	.....	.....	.....
J. B. Anctil	Matane	Matane	Reg. 1221	Matane	C.&G.T.R	43·0	52·3	51·2	48·0	50·0	.....	.....
Louis Levesque	Cacouna	Témiscouata	R 86	Cacouna	I.C.R.	43·0	45·0	48·5	48·2	.....	.....	.....
Pierre Proulx	Ste. Agathe	Lotbinière	201	Methot's Mill	G.T.R.	44·3	44·1	42·1	43·1	49·8	.....	.....
F. Provost	Acton Vale	Bagot	F 62	Acton	G.T.R.	44·3	55·6	51·8	59·3	56·9	.....	.....
Charles Bouchard	St. Denis	Kamouraska	K 13	St. Philippe de Néri	I.C.R.	44·5	.....	.....	.....	.....	.....	.....
Léon Chouinard	St. Paschal	"	XX	St. Paschal	I.C.R.	44·6	.....	.....	.....	.....	.....	.....
J. Ross	Amqui	Matane	I R	Amqui	I.C.R.	45·0	.....	.....	.....	.....	.....	.....
Neideler & Frère	St. Germain de G.	Drummond	P 2	St. Germain	I.C.R.	45·0	.....	45·4	59·0	49·0	.....	.....
J. E. Petit	Gentilly	Nicolet	A 587	Gentilly	Q.M.&S.	45·7	.....	.....	.....	.....	.....	.....
Elisée Dumas	St. Epiphane	Témiscouata	ED	St. Arsène	I.C.R.	45·7	44·7	45·7	45·4	47·7	55·3	.....
W. Gareau	St. Jérôme	Terrebonne	WG	St. Jérôme	C.P.R.	46·2	47·3	58·3	46·9	50·5	50·0	.....
Léon Thériault	Isle Verte	Témiscouata	No. 465	Isle Verte	I.C.R.	46·5	46·1	46·3	46·7	43·4	42·2	...
Ludger Caron	Jersey Mills	Beauce	H&H 379	St. Georges	Q.C.R.	47·3	64·0	.....	.....	.....	.....	...
J. H. Chalse	Mont Laurier	Labelle	Mt Laurier Crémerie	Mont Laurier	C.P.R.	47·3	.....	.....	.....	.....	.....	.....
Syndicat Ste. Hénédine	Ste. Hénédine	Dorchester	Reg. 372	Ste. Hénédine	Q.C.R.	47·4	52·3	.....	.....	.....	.....	.....
J. I. Alain	Ste. Anne de la Pérade	Champlain	Cap No. 6	La Parade	C.P.R.	47·6	49·3	47·9	53·3	.....	.....	.....
J. A. McCallum	Danville	Richmond	825	Danville	G.T.R.	47·8	41·0	40·2	44·9	53·8	40·1	41·2
A. A. Nicolle	St. Simon	Rimouski	N	St. Simon	I.C.R.	47·8	49·6	48·1	50·6	48·8	.....	.....
Revd. Mr. Noel	St. Cyprien	Témiscouata	6	St. Eloi	I.C.R.	48·0	49·6	54·3	53·6	59·0	.....	.....
C. Nadeau	St. Isidore	Dorchester	E&C 11	Ste. Hénédine	Q.C.R.	48·4	45·4	.....	.....	.....	.....	.....
A. Genois	St. Raymond	Portneuf	Reg. 500	St. Raymond	Q.S.&I.R.	48·5	39·2	.....	.....	.....	.....	.....
Ernest Lemaire	St. Bonaventure	Yamaska	WP 5	St. Guillaume	C.P.R.	48·5	.....	.....	52·5	.....	.....	.....
Israel Dion	La Chapelle	Two Mountains	ID	Papineau	C.N.Q.R.	49·0	44·3	52·4	46·3	52·5	.....	.....
N. Rocheleau	St. Gabrielle de B.	Berthier	A 603	St. Gabriel	C.P.R.	49·0	52·8	54·5	.....	.....	.....	.....

Louis Archambault	Lachevrotière	Portneuf	LA 5	Deschambault	C.N.Q.R.	49·0						
Syndicat St. Isidore	Coulombe	Dorchester	Reg. 498	Ste. Hénédine	Q.C.R.	49·0	52·4					
Joseph Bourque	St. François	Beauce	AMc 20	St. Georges	Q.C.R.	49·2						
O. Bernier	Sault St. Lin	L'Assomption	Reg. 474	St. Lin	C.P.R.	49·3		50·8		50·6	53·0	
Charles Harvey	Amqui	Matane	Ayer 8	Amqui	I.C.R.	49·4	46·8	50·5		50·0		
I. Dumas	St. Jean de Dieu	Témiscouata	JD	Trois Pistoles	I.C.R.	49·4	58·5	56·2	54·3	54·0		
Eugène Godbout	St. Eloi	"	Rose Hill 19	St. Eloi	I.C.R.	49·4	46·7	49·6	51·6	50·0		
E. R. Pepin	St. Basile	Portneuf	Reg. 86	St. Basile	C.P.R.	49·4	49·6	49·2	51·5	54·4	55·8	56·0
J. C. Rioux	Mont Joli	Rimouski	I.C.R	Ste. Flavie	I.C.R.	49·5	59·5	49·2	53·8	53·8		
Joseph Beaudoin	Cabane Ronde	L'Assomption	J B	Cabane Ronde	C.P.R.	49·5				63·0		
Syndicat St. Bernard	St. Bernard	Dorchester	C P 73	Scotts	Q.C.R.	49·5	47·6					
Auguste Breton	St. Epiphane	Témiscouata	B C	St. Arsène	I.C.R.	49·7	45·6	46·8	47·3	52·0	52·0	
F. Caron	St. Jean Port Joli	L'Islet	116	St. Jean Port Joli	I.C.R.	49·7	62·3	56·2	58·0	58·0		
J. P. Charpentier	L'Avenir	Drummond	Canada extras 12	Drummondville	I.C.R.	49·7	56·3					
J. A. Sainden	St. Arséne	Témiscouata	JAS	St. Arsène	I.C.R.	50·0	48·5	50·7	47·5	52·0	50·3	
D. Pelletier	Acton Vale	Bagot	956	Acton	G.T.R.	50·0	54·5	49·5	51·2	54·0		
T. St. Georges	Kildare	Joliette	HBR 25	Joliette	C.N.Q.R.	50·0	53·6	53·1	54·2	51·0	53·6	
W. Rioux	Cedar Hall	Matane	C H	Cedar Hall	I.C.R.	50·0	49·6	52·1				
Wilfrid St. Georges	St. Jean de Matha	Joliette	HBR 80	St. Félix de Valois	C.P.R.	50·0	47·0	49·8				
Arcade Pagé	Côte Fortier	Two Mountains	G 129	Ste. Scholastique	C.P.R.	50·0	53·3					
A. Dandonneau	St. Damien	Berthier	OD&S 1	St. Gabriel	C.P.R.	50·2	52·4	47·4	45·4	48·0		
D. McCarthy	Ulverton	Drummond	H 53	Lisgar	G.T.R.	50·2	55·5	54·5	61·0	53·0		
Syndicat St. Paschal	St. Paschal	Kamouraska	XXX	St. Paschal	I.C.R.	50·3	52·5	50·1	49·0	51·0		
Chas. Eug. Apoil	Green River	Témiscouata	339	Riv. du Loup	I.C.R.	50·5	52·6	55·0				
L. A. Boucher	L'Islet	L'Islet	LAB 445	L'Islet	I.C.R.	50·5	50·0	51·1	51·0	54·5		
Alp. Mercier	St. Patrice	Lotbinière	FR 57	St. Agapit	G.T.R.	50·5	53·1	52·2	49·2	49·8		
Philippe Roussel	Isle Verte	Témiscouata	R 18	Isle Verte	I.C.R.	50·6	54·3	53·5	55·6	50·3		
François Roy	N.D. du Mont Carmel	Kamouraska	K 12	St. Philippe de Néri	I.C.R.	50·7	52·5	50·8	45·1	56·0		
Naz. Demers	St. Giles	Lotbinière	Naz. Deniers	St. Agapit	G.T.R.	50·7	52·5	51·2	53·8	55·6		
Joseph Fontaine	St. Anselme	Dorchester	JL 464	St. Anselme	Q.C.R.	50·7						
D. Laurin	St. Janvier	Terrebonne	St. J	St. Janvier	C.P.R.	50·8	59·0	56·5	61·5	58·0		
Syndicat Ste. Marguerite	Ste. Marguerite	Dorchester	Canadian Verbenas 15	St. Hénédine	Q. C. R	51·0	57·5					
Cyrois Godbout	St. Eloi	Témiscouata	B	St. Eloi	I. C. R	51·2	50·8	49·5	46·1	51·8		
H. Lecompte	St. Théodore d'Acton	Bagot	Rose 3	Acton	G. T. R	51·2	57·0	53·8	59·6	54·3		
D. Kerouack	St. Narcisse	Lotbinière	F R 71	St. Agapit	G. T. R	51·2	53·4	51·4	53·3	51·5		
Philibert Gauthier	St. Luc	Matane	R 36	Matane	C.&G.T.R	51·3	48·4	51·1	49·0	44·0		
Euclide Phaneuf	Rapide L'Orignal	Labelle	D 21	Mont Laurier	C. P. R	51·3						
Rev. J. A. Gagné	Maria	Bonaventure	G 850	Maria	Q. O. R	51·4						
Isidore Jodoin	St. Théodore d'Acton	Bagot	Hillcrest 1340	Acton	G. T. R	51·5	57·8	56·7	53·2	54·5		
A. S. Deslandes	St. Valerien	Shefford	Deslandes	St. Liboire	G. T. R	51·5	50·5	57·0	54·6	57·0		
C. Laviolette	Cadot	Montcalm	H M 6	St. Julienne	C.N.Q.R.	51·6	51·5	61·0	57·2			
Alex. Gouin	St. Félix de Kingsey	Drummond	Canada A	Richmond	G. T. R	51·6						
J. E. Larose	St. Lin	L'Assomption	HBR 42	St. Lin	C. P. R	51·6	49·0	49·0		51·3		
Alexis Coté	Trois Pistoles	Témiscouata	3	Trois Pistoles	I. C. R	51·6	54·2	52·2	48·2	46·6		
Cyris Godbout	St. Eloi	Témiscouata	HBR	Isle Verte	I. C. R	51·6	50·0	50·1	51·0	47·3		
C. Eug. Michaud	Isle Verte	Témiscouata	Reg 381	Isle Verte	I. C. R	51·6	53·1					
Jos. Shaw	Shawbridge	Terrebonne	G L	Shawbridge	C. P. R	52·0	62·0					

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS—*Continued.*

Average Temperature of Creamery Butter at Shipping Points in the Province of Quebec for seven years 1905 to 1911 inclusive: J. N. Lemieux, Inspector—*Continued.*

Name of Proprietor or Manager.	Post Office Address.	County.	Marks.	Railway Shipping Station.	Railway.	Years.						
						1911.	1910.	1909.	1908.	1907.	1906.	1905.
						Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
A. Houle	St. Simon	Bagot	Peerless 2	St. Simon	C. P. R.	52·0	57·6	57·0	61·2	50·0	55·0	.....
J. E. Doucet	St. Léonard	Nicolet	JED 2	St. Léonard Jct	I. C. R.	52·0	.....	.....	.....	.....	.....	.....
Eugène Roy	St. Clément	Témiscouata	ER	St. Eloi	I. C. R.	52·1	44·7	46·4	50·9	50·3	.....	.....
J. Emile Pelletier	Bolduc	Beauce	V 37	St. Georges	Q. C. R.	52·3	53·6	.....	.....	.....	.....	.....
Geo. Bennett	New Glasgow	Terrebonne	Green Bank	Paisley	C.N.Q.R.	52·5	47·5	57·0	60·0	57·0	.....	.....
Louis Leclerc	St. Guillaume	Yamaska	WP 2	St. Guillaume	C. P. R.	52·5	56·5	.....	.....	.....	.....	.....
E. Marchand	St. Joseph	Nicolet	North Star 128	Daveluyville	I. C. R.	52·5	55·8	51·5	57·5	53·0	.....	.....
A. Paquette	St. Magloire	Bellechasse	A 543	St. Sabine	Q. C. R.	52·6	54·1	.....	.....	.....	.....	.....
F. Beaucheno	Bécancœur	Nicolet	A 548	Riv. Gentilly	Q. M. & S.	52·6	.....	.....	.....	.....	.....	.....
Aug. Boucher	St. Cléophas	Joliette	AugBoucher	St. Félix de Valois	C. P. R.	52·6	58·5	52·7	.....	.....	.....	.....
Joseph Blanchette	Ste. Anne de la Pocatière	Kamouraska	K 18	St. Pacome	I. C. R.	52·6	50·0	56·6	59·5	.....	.....	.....
Gendreau & Imbeau	St. Luc	Matane	43	Matane	C.&G.T.R	52·6	.....	45·2	58·3	.....	.....	.....
P. Plante	St. Joseph de Lepage	Rimouski	85	St. Flavie	I. C. R.	52·6	50·7	52·0	55·6	.....	53·6	.....
E. Ménard	Acton Vale	Bagot	Dale 53	Acton	G. T. R.	52·6	54·7	57·0	57·5	56·4	.....	.....
Daudelin & Despris	St. Pie	Bagot	M 76	St. Pie	C. P. R.	52·7	54·0	45·5	48·0	.....	50·3	56·1
Jean Faucher	Ste. Marie	Beauce	R 157	St. Marys	Q. C. R.	53·0	.....	.....	.....	.....	.....	.....
A. Godin	St. Wenceslas	Nicolet	A 472	St. Wenceslas	I. C. R.	53·0	.....	.....	.....	.....	.....	.....
J. B. Thériault	St. Modeste	Témiscouata	Brae 20	Cacouna	I. C. R.	53·0	50·6	53·1	52·2	50·3	54·6	.....
Syndicat de Ste. Philomène	Fortierville	Lotbinière	F R 79	Fortierville	Q.M.&.R.	53·0	52·0	.....	51·8	.....	.....	.....
Louis Bernier	St. Evariste	Beauce	Hill Top 65	St. Evariste	Q. C. R.	53·0	51·0	55·3	64·0	50·6	.....	.....
A. Belzile	St. Mathieu	Rimouski	M	St. Simon	I. C. R.	53·2	51·2	52·9	53·3	54·0	.....	.....
Jos. Anctil	Riv. Blanche	Matane	Brae 11	Riv. Blanche	C.&G.T.R	53·3	54·8	.....	.....	.....	.....	.....
L. J. Desilets	St. Gertrude	Nicolet	HOH 52	Becancour	Q.M&S.R	53·4	.....	50·0	.....	.....	.....	.....
Exilius Desroches	St. Beatrice	Joliette	S G	St. Félix de Valois	C. P. R.	53·5	51·8	48·0	.....	.....	.....	.....
Chouinard & Dubuc	Mégantic	Beauce	Lake 14	Mégantic	Q. C. R.	53·6	.....	.....	.....	.....	.....	.....
Trudel ——	St. Roch L'Achigan	L'Assomption	J G	Cabane Ronde	C. P. R.	53·7	.....	.....	.....	.....	.....	.....
Honoré Roux	Victoriaville	Arthabaska	A 41	Victoriaville	G. T. R.	53·7	.....	.....	.....	.....	.....	.....
Jean Bernard	St. Barnabé	St. Hyacinthe	W 42	St. Barnabé	Q.M&R.S	53·7	.....	.....	.....	.....	.....	.....
Geo. Vermette	St. Agapit	Lotbinière	FR 88	St Agapit	G. T. R.	53·8	56·2	46·9	51·6	53·6	.....	.....

E. Grenon	St. Barnabé	St. Hyacinthe	Champion	St. Barnabé	Q.M.&S.R	53·8	55·2	49·1	52·9	50·8	45·6	51·7
A. J. Desrosiers	St. Félix de Valois	Joliette	HBR 59	St. Félix de Valois	C. P. R	54·0	66·0	58·5				
Geo. Bennett	New Glasgow	Terrebonne	Elm Bank	New Glasgow	C.N.Q.R.	54·0	43·0	52·0	47·0	48·3		
Majorique Gilbert	Beauceville	Beauce	R 129	Beauceville	Q. C. R	54·0						
Edouard Jean	St. Fabien	Rimouski	F	St. Fabien	I. C. R	54·1	53·4	56·3	53·6	53·3		
Raoul Leger	St. Scholastique	Two Mountains	Canadian 25	St. Scholastique	C. P. R	54·1	55·5					
J. Chamberland	Sandy Bay	Matane	G 518	Sandy Bay	C.&G.T.R	54·2	50·4	52·8	51·5	51·0		
A. Bourgault	St. Jean Port Joli	L'Islet	HA 121	St. Jean Port Joli	I. C. R	54·2						
J. G. Héroux	Terrebonne	Terrebonne	J G H	Terrebonne	C. P. R	54·2	60·5	56·7		59·5		
Geo. Bourgeois	Ste. Sophie de Mégantic	Mégantic	HOH 40	Plessisville	G. T. R	54·2						
Cyris Godbout	St. Eloi	Témiscouata	C G	St. Eloi	I. C. R	54·2	47·5	52·7	53·1			
Joseph Beaulieu	St. Flavie	Rimouski	G 836	St. Flavie	I. C. R	54·3	54·0	50·0		52·5	48·6	
Joseph Fleury	St. Léon	Maskinongé	O 3	Louiseville	C. P. R	54·5	55·0	47·8	42·2	57·8	60·6	57·0
P. Dionne	St. Philippe de Néri	Kamouraska	K 21	St. Philippe	I. C. R	54·5	54·2	56·3	59·7	58·0		
G. L. Houle	Daveluyville	Arthabaska	A 466	Daveluyville	I. C. R	54·5						
A. Brasseur	Ste. Christine	Bagot	Canadian 9	Danby	G. T. R	54·6	56·4	57·1				
Aug. Fortin	St. Cyrille	L'Islet	A F	L'Islet	I. C. R	54·6	54·2	51·6		52·3		
John April	Chemin Taché	Témiscouata	143	St. Arsène	I. C. R	54·6	54·2	54·3	55·1	52·3		
M. Desjardins	Cote St. Hermas	Two Mountains	D 29	St. Hermas	C. P. R	54·6						
Ferdinand Thibault	L'Islet Station	L'Islet	JO 49	L'Islet	I. C. R	54·7	49·7	53·0	54·5	54·0		
Octave Roy	St. Ephrem	Beauce	R	St. Ephrem	Q. C. R	55·0	55·0					
Joseph Crepeau	Chertsey	Montcalm	L 15	Rawdon	C.N.Q.R.	55·0						
C. Bernier	Cap St. Ignace	Montmagny	R 126	Cap St. Ignace	I. C. R	55·0	57·2	51·9	58·0			
A. Drouin	Ste. Sophie de Lacorne	Terrebonne	AD	Ste Sophie	C.N.R.Q.	55·0	51·0	52·7	59·0	51·8		
Eug. Casavant	Upton	Bagot	Rose 33	Upton	G. T. R	55·0	51·0					
J. A. Ménard	Acton Vale	Bagot	Dale 30	Acton	G. T. R	55·0	55·0					
Amédé Lapalme	St. Hugues	Bagot	Hillcrest 1	St. Hugues	C. P. R	55·0	55·8	54·5	56·0	52·0	55·0	
J. Ludger Rioux	Trois Pistoles	Témiscouata	X	Trois Pistoles	I. C. R	55·0	56·2	54·4	52·1	50·7		
P. Langlois	Ste. Angèle de Mérizzi	Rimouski	PL 1	St. Flavie	I. C. R	55·0	59·5	52·6		57·0	53·3	
Chaput & Rondeau	Ste. Elizabeth	Joliette	V	Ste. Elizabeth	C.N.Q.R.	55·3		41·8	51·1	50·7		
Joseph Tremblay	Ste. Félicité	Matane	Reg. 886	Matane	C.&Q.T.R	55·3	60·8	56·4	55·8	55·5		
W. St. Onge	St. Grégoire	Iberville	F & M 41	Mont Johnson	Q.M.&S.R	55·5		54·8	58·2	54·3		53·2
A. Bourbonnais	St. Polycarpe	Soulanges	CP 81	St. Polycarpe	G. T. R	55·5	62·8	56·0				
G. W. Jutras	L'Avenir	Drummond	CBJ 4	Danby	G. T. R	55·5						
E. H. Dumas	N. D. du Lac	Témiscouata	G 803	N.D. du Lac	T. R	55·5	56·1	56·2				
Joseph Anctil	Ste. Louise	L'Islet	JO 42	Ste. Louise	I. C. R	55·5	53·0					
A. Tremblay	St. Aubert	L'Islet	Reg. 894	St. Jean Port Joli	I. C. R	55·5	57·8	52·7	57·7			
Roch Gamache	Bissonnette	Montcalm	RG	St. Lin	C. P. R	55·5	54·5					
O. Hardy	St. Sylvère	Nicolet	North Star 100	Daveluyville	I. C. R	55·6	55·5					
F. Vaillancourt	Bonaventure	Bonaventure	FV	Bonaventure	Q. O. R	55·6						
N. Gadoury	St. Jean de Matha	Joliette	CP 146	St. Félix de Valois	C. P. R	55·6	53·4	52·2				
A. Dupont	Ste. Christine	Bagot	Dale 33	Danby	G. T. R	55·6	59·2					
Urgèle Monfet	Ste. Emélie	Lotbinière	CP 75	Fortierville	Q.M.&S.R	55·6	60·4					
Ovide Blais	St. Grégoire	Nicolet	A 592	St. Grégoire	Q.M.&S.R	55·6						
Cassin Bros	Kingsey	Drummond	Kingsey C.	Richmond	G. T. R	55·6	49·1	46·3	52·5	43·6	44·1	
C. Proulx	South Durham	Drummond	Rose 13	South Durham	G. T. R	55·6	63·5					
J. O. Desrochers	St. Léonard	Nicolet	SL 1	St. Léonard Jct.	I. C. R	55·7						

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS—*Continued.*

Average Temperature of Creamery Butter at Shipping Points in the Province of Quebec for seven years, 1905 to 1911 inclusive: J. N. Lemieux, Inspector—*Continued.*

Name of proprietor or Manager.	Post Office Address.	County.	Marks.	Railway Shipping Station.	Railway.	Years.						
						1911.	1910.	1909.	1908.	1907.	1906.	1905.
						Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
A. Toutant	St. Grégoire	Nicolet	North Star 37	St. Grégoire	Q.M.& S.R	55·7	56·8					
Joseph Roy	Berthier en Bas	Montmagny	126	St. Vallier	I. C. R.	55·8	61·6	59·7	60·0			
L. A. Levesque	Dessaint	Kamouraska	K 10	Dessaint	I. C. R.	56·0	51·0					
Eug. Gourgues	St. Paul	Montmagny	CL&Co. 360.	St. Pierre	I. C. R.	56·0	57·0	55·5				
H. Charland	St. Simon	Bagot	Dale 21	St. Simon	C. P. R.	56·0	57·4	58·0	58·8	52·7	53·7	
A. Casavant	St. Dominique	Bagot		St. Hyacinthe	C. P. R.	56·0	61·5					
Alb. Champagne	St. Emélie de L'Energie	Joliette	AC	St. Félix de Valois	C. P. R.	56·0	49·5	54·0				
J. G. Hamelin	St. Polycarpe Jct	Soulanges	JGH	St. Polycarpe Jct	G. T. R.	56·0	62·0	63·5				
Geo. Bergeron	Chacouna	Maskinongé	OG 15	St. Paulin	C.N.Q.R.	56·0	56·3					
J. B. Lanthier	St. Jérôme	Terrebonne	56	St. Jérôme	C.N.Q.R.	56·0		56·6	58·3			
Pierre Dion	St. Liboire	Bagot	H 60	Charlotte	I. C. R.	56·0	56·0	53·2	57·2			
Joseph Blanchette	St. Anne de la Pocatière	Kamouraska	K 17	Ste. Anne	I. C. R.	56·1	53·0	56·6	59·5			
A. Gaudreau	L'Islet	L'Islet	E & C 15	Trois Saumons	I. C. R.	56·2	59·5	54·7	61·2	55·5		
Maurice Beaulieu	St. Philémon	Bellechasse	A 541	St. Valier	I. C. R.	56·2	51·4					
Z. A. Leblanc	South Durham	Drummond	H 52	South Durham	G. T. R.	56·2	62·0					
J. O. Caron	St. Georges	Beauce	G 1076	St. Georges	Q. C. R.	56·2	64·0					
Nérée Marin	Ste. Hélène	Kamouraska	K 5	Ste. Hélène	I. C. R.	56·3	51·5	57·0		58·0		
A. Langevin	Jogues	Bagot	Peerless 5	St. Pie	C. P. R.	56·3	54·0	48·5	59·0			
Joseph Binet	Warwick	Arthabaska	HA 163	Warwick	G. T. R.	56·3	50·2					
Joseph Lemonde	St. Liboire	Bagot	B 74	St. Liboire	G. T. R.	56·3	51·5	56·5	59·1	53·8		
H. Dubois	Upton	Bagot	OD&S 105.	Upton	G. T. R.	56·3	49·0	54·4	57·6	54·0		
J. A. Héroux	Ste. Perpétue	Nicolet	JB 38	Ste. Perpétue	I. C. R.	56·5	56·5					
Aurèle Leclerc	St. Eugène de G	Drummond	Corona	Duncan	I. C. R.	56 5	57·5	57·5	60·4	49·0		
Joseph St. Pierre	Ste Rosalie	Bagot	R 8	Ste. Rosalie	C. P. R.	56·5	58·6	56·0	59·0	52·0		
Gélas Michon	St. Pie	Bagot	B 12	St. Pie	C. P. R.	56·5	53·6	47·5	50·5		44·2	55·6
H. Lapalme	Abbotsford	Rouville	Elm Bank	Abbotsford	C. P. R.	56·5	60·3	61·2	63·7	52·0	51·4	62·0
Sam Deslauriers	Danby	Drummond	Mountain View	Danby	G. T. R.	56·5	57·2					
Arthur Doucet	St. Léonard	Nicolet	GD 1	St. Léonard Jct	I. C. R.	56·6	56·0					
P. Kerouack	St. Eugène	L'Islet	114	L'Islet	I. C. R.	56·7	52·2	54·3	59·0	58·5		
Edmond Bélanger	Cap St. Ignace	Montmagny	R 4	Cap St. Ignace	I. C. R.	56·7	53·5	55·3	58·7	58·0		

C. Marceau	St. Vallier		CP 76	St. Vallier	I. C. R.	56·7	55·5	55·0	60·0	55·5		
Dubois & Deshaies	St. Sylvère	Nicolet	A 400	Daveluyville	I. C. R.	56·8	57·0					
J. E. D. Rioux	Ste. Françoise	Témiscouata	8	Trois Pistoles	I. C. R.	57·0						
Joseph Bolduc	Morin	Bellechasse	E & C 18	St. Michel	I. C. R.	57·0	62·3	54·7	56·6			
H. Lacasse	Ste. Lucie de D	Terrebonne	GL 20	Belisle's Mill	C. P. R.	57·0	60·4	58·5	59·3	64·3		
Agmis Roy	St. Jean de Matha	Joliette	V 122	St. Félix de Valois	C. P. R.	57·0	56·0	52·8			54·0	
Oscar Gilbert	St. Ferdinandd'Halifax	Mégantic	AG 1.	Plessisville	C. P. R.	57·0			59·2			
Louis Gauvin	St. Thomas d'Aquin	St. Hyacinthe	St. Thomas	St. Hyacinthe	G. T. R.	57·0						
Geo. Bennett	New Glasgow	Terrebonne	Oak Bank	New Glasgow	C.N. Q.R.	57·0	43·5		57·7	48·5		
A. Gazaille	St. Dominique	Bagot	R 20	St. Pie	C. P. R.	57·1	55·6	57·7	60·0		53·2	
Philippe Houle	St. Appolinaire	Lotbinière	FR 9.	St. Apolinaire	I. C. R.	57·2	60·0					
Beaudoin & Roberge	St. Come	Beauce	White Daisies 23	St. Georges	Q. C. R.	57·2						
O. Beaudry	St. Emélie de l'Energie	Joliette	OB	St. Félix de Valois	C. P. R.	57·3	49·5	49·8				
Joseph Longpré	St. Emélie de l'Energie	Joliette	JL	St. Félix de Valois	C. P. R.	57·3						
P. H. Gareau	St. Polycarpe	Soulanges	CP 83	St. Polycarpe	G.T.R.	57·3	59·5	58·2				
J. O. Goyette	St. Valerien	Shefford	T&T 519	Upton	G.T.R.	57·3		56·2	56·6	51·5		
Philippe Hebert	St. Léonard	Nicolet	SL 3	St. Léonard Jc	I.C.R.	57·4						
E. Lanthier	St. Augustin	Two Mountains	Reg 256	St. Eustache	C.P.R.	57·5	57·6	62·0	55·2	54·2	56·4	
Az. Brien	Pont Mousseau	L'Assomption	900	St. Lin	C.P.R.	57·5	61·5	59·2				
Docteur Dubé	St. Sylvestre Est	Lotbinière	FR 51	St. Agapit	G.T.R.	57·5	53·3	52·1	54·0	56·5		
O. W. Séguin	St. Jolycarpe Jct	Soulanges	CLM	St. Polycarpe Jct.	G.T.R.	57·5	56·0	55·3				
M. Ethier	St. Julienne	Montcalm	HBR 55	St. Julienne	C.N.Q.R.	57·5		47·0	57·2	53·3		
O. Ratelle	St. Liguori	Montcalm	B 40	Montcalm	C.N.Q.R.	57·5						
Cyris Godbout	St. Eloi	Témiscouata	Brae 15	Ste. Rose du Dégelé	T.R.	57·6	60·6					
Louis Pelletier	St. Louis du HaHa	Témiscouata	R 32.	St. Louis de HaHa	T.R	57·6						
P. O. Boyer	St. Michel	Bellechasse	132	St. Michel	I.C.R.	57·6	52·4	56·2				
G. P. Cyr	Lambton	Beauce	MAC 97	Courcelles	Q.C.R.	57·6	58·6					
G. Daigneault	St. Janvier	Terrebonne		St. Janvier	C.P.R.	57·6	61·0					
Damien Comtois	Cap St. Gabriel	Berthier	OD&S 72	St. Gabriel	C.P.R.	57·6	49·0	51·5	43·7	52·5		
A. Chagnon	Point du Jour	St. Hyacinthe	R 55	St. Hyacinthe	G.T.R.	57·6			63·5			
O. Phaneuf	St. Hyacinthe	St. Hyacinthe	Dale 20	St. Hyacinthe	G.T.R.	57·6	61·0	57·0		61·0		
Ant. Allarie	St. Jérome	Terrebonne	AA	St. Jérome	C.N.Q.R.	57·6	52·3	55·2	51·0	53·8	67·6	
Alp. Jean	St. Francois	Montmagny	E&C 3	St. Francois	I.C.R.	57·7	63·3	56·0	58·6			
Arthur Blais	St. Vallier Stat	Bellechasse	138	St. Vallier	I.C.R.	57·7	63·5					
Hubert Morin	Buckland	Bellechasse	E&C 7	St. Charles	I.C.R.	57·7	54·7	53·0				
F. Robillard	St. Edouard	Napierville	F.R	St. Edouard	Nap Jct R	57·8						
A. O. Bernard	St. Ephrem de Tring	Beauce	126	St. Ephrem	Q.C.R.	58·0	58·5	55·3	56·7	54·8		
H. Diamont	St. Léonard	Portneuf	174	St. Raymond	Q & L St J	58·0			52·0			
Denis Larivière	St. Marie de Blandford	Nicolet	HOH 75	Lemieux	I.C.R.	58·0	57·6	57·5	57·5			
H. Mailhiot	St. Gertrude	Nicolet	HOH 51	Daveluyville	I.C.R.	58·0	56·5	59·5	61·0	50·0		
J. Eug. Tondreau	Montmagny	Montmagny	N 1	Montmagny	I.C.R.	58·0	59·2	57·6				
H. Laprade	St. Guillaume	Yamaska	Golden Star 32	St. Prime	C.P.R.	58·0		47·0				
C. Vadnais	St. Marcel	Richelieu	3	Cavignac	C.P.R.	58·0	60·6	55·0	59·0			
Amédé Lapalme	St. Hughes	Bagot	B 17	Cavignac	C.P.R.	58·0	60·4	54·7	48·0	50·0		
A. Lessard	Ste. Adèle	Terrebonne	A.L.	Ste. Adèle	C.P.R.	58·0	62·0					
Octave Roberge	St. Félix de Valois	Joliette	O. Roberge	St. Félix de Valois	C.P.R.	58·0	49·0	54·2			61·3	
A. M. Jutras	Plessisville	Mégantic	HOH 21	Plessisville	G.T.R.	58·0						
Henri Gagné	Pacaud	Arthabaska	HA 127	Victoriaville	G.T.R.	58·0						

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS—*Continued.*

Average Temperatures of Creamery Butter at Shipping Points in the Province of Quebec for seven years, 1905 to 1911, inclusive.
J. N. Lemieux, Inspector—*Continued.*

Name of Proprietor or Manager.	Post Office Address.	County.	Marks.	Railway Shipping Station.	Railways.	Years.						
						1911.	1910.	1909.	1908.	1907.	1906.	1905.
						Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
Horace Brunelle	Upton	Bagot	HBR 52	Upton	G.T.R.	58·0	53·5	52·8	56·7	56·4	...	.....
Geo. Beausoleil	St. Alexis	Montcalm	OD&S 19	St. Alexis	C.N.Q.R.	58·0	53·5	62·7	58·2	55·3	.....	.....
E. Beauregard	Kildare	Joliette	North Star	Montcalm	C.N.Q.R.	58·0	.....	58·5	57·0	.....	.....	.....
Ephrem Aubin	St. Appolinaire	Lotbinière	EB 80	St. Appolinaire	I.C.R.	58·2	60·3	.....	.....	.....	.....	.....
O. Malenfant	Ste. Rose du Dégélé	Témiscouata	2000	Edmundston	T.R.	58·2	61·5	61·0	.....	.....	.....	.....
J. A. Ratté	St. Paul	Montmagny	CP 121	St. Pierre	I.C.R.	58·2	51·3	55·1	57·4	57·0	.....	.....
D. J. Cleary	Shawbridge	Terrebonne	S.B.	Shawbridge	C.P.R.	58·2	60·0	61·5	59·5	59·3	63·0	.....
A. Blouin	Rawdon	Montcalm	K	Montcalm	C.N.Q.R.	58·3	51·5	.....	56·0	.....	.....	.....
R. Maillet	St. Honoré	Beauce	D 23	St. Evariste	Q.C.R.	58·3	59·0	.....	.....	.....	.....	.....
Ringuette & Frère	St. Nazaire d'Acton	Bagot	W 40	Duncan	I.C.R.	58·3	52·5	56·4	60·8	47·0	.....	.....
Joseph Ruel	St. Charles	Bellechasse	R	St. Charles	I.C.R.	58·3	.....	.....	.....	.....	.....	.....
Theberge & Letestu	St. Pie	Bagot	M 29	St. Pie	C.P.R.	58·3	58·6	.....	.....	.....	.....	.....
Louis Roy	St. Jaques Nord	Montcalm	OD&S 100	Dugas	C.N.Q.R.	58·5	49·0	49·0	55·0	.....	.....	.....
J. A. Philibert	L'Epiphanie	L'Assomption	Reg 492	L'Epiphanie	C.N.Q.R.	58·5	55·0	63·0	.....	.....	.....	.....
D. Larivière	St. Aimé	Richelieu	WP 8	St. Aimé	Q.M&S.R.	58·5	.....	.....	.....	.....	.....	.....
J. Thomas Dyon	St. Odilon de Coulombe	Dorchester	WB 83	St. Joseph	Q.C.R.	58·5	.....	.....	.....	.....	.....	.....
J. E. Dion	St. Sébastien	Beauce	D 50	St. Sébastien	Q.C.R.	58·5	.....	.....	.....	.....	.....	.....
John Albert	Albertine, N.B.	Madawaska	HBR P 54	St. Hilaire	T.R.	58·5	.....	58·0	.....	.....	.....	.....
J. P. Rocheleau	Pauline	Rouville	Dale 11	Abbotsford	C.P.R.	58·5	59·6	55·0	.....	.....	.....	.....
Joseph Roussel	La Plaine	Terrebonne	HBR 104	La Plaine	C.P.R.	58·5	.....	.....	.....	.....	.....	.....
J. H. Paquette	St. Valérien	Shefford	Cedar Point 1	Upton	G.T.R.	58·5	52·5	54·2	58·4	57·0	.....	.....
R. Chagnon	St. Germain de G.	Arthabaska	F&M 9	Duncan	I.C.R.	58·6	62·5	54·5	57·3	.....	.....	.....
Théodore Rose	Petit Matane	Matane	Brae 6	Matane	C.&Q.T.R.	58·6	60·0	63·6	.....	.....	.....	.....
Ad. Lecompte	Delagrave	Montmagny	E&C 10	St. Pierre	I.C.R.	58·6	59·5	56·3	.....	.....	.....	.....
A. Pouchette	Milton East	Shefford	53	St. Pie	C.P.R.	58·8	60·6	.....	.....	.....	.....	.....
J. D. Blanchette	St. Roch des Aulnaies	L'Islet	8	Elgin Road	I.C.R.	58·8	58·0	55·3	58·9	56·0	.....	.....
Hardy Frères & Cie	Ste. Angelique	Portneuf	LLBR	Pont Rouge	C.P.R.	59·0	.....	.....	.....	59·3	.....	.....
A. Laporte	St. Elizabeth	Joliette	HBR 100	Ste. Emélie	C.P.R.	59·0	.....	56·0	.....	.....	.....	.....
Léon Boucher	St. Valère de Bulstrode	Arthabaska	CM 30	Victoriaville	G.T.R.	59·0	52·9	.....	.....	.....	.....	.....
H. Leclerc	Laprésentation	St. Hyacinthe	CP 80	St. Hyacinthe	G.T.R.	59·0	.....	.....	.....	.....	.....	.....
W. Ferron	St. Léon	Maskinongé	OG 30	St. Paulin	C.N.Q.R.	59·0	56·6	55·6	54·6	52·7	.....	.....

M. Brault	Montcalm	Montcalm	HM 4	Montcalm	C.N.Q.R.	59·0	.....	57·5	52·0	50·5	.....	.....
H. S. Tousignaut	St. Pierre les Becquets.	Nicolet	H.S.T.	Becquets	Q.M.&S R	59·0	.....	.....	.....	.....	.....	.....
Syndicat St. Sophie	Ste. Sophie de Levrard	Nicolet	EB 65	Becquets	Q.M.&S R	59·0	53·0	.....	.....	.....	.....	.....
Charles Veilleux	Rivière Gilbert	Beauce	D 16	St. Georges	Q.C.R.	59·0	.....	.....	.....	.....	.....	.....
Gédéon Roy	St. Ephrem de Tring	"	R 3	St. Ephrem	Q.C.R.	59·0	60·0	53·0	57·3	49·1	.....	.....
Albert Roy	"	"	LP 27	"	Q.C.R.	59·0	57·5	56·0	55·7	56·3	.....	.....
J. L. Janelle	St. Sylvère	Nicolet	G 840	Daveluyville	I.C.R.	59·0	.....	.....	62·0	.....	.....	.....
Philippe, Héon	St. Louis de Blandford	"	HOH 10	"	I.C.R.	59·0	56·5	.....	.....	.....	.....	.....
Napoléon Fortier	St. Eulalie	"	31	Aston Jct	I.C.R.	59·9	.....	.....	.....	.....	.....	.....
Conrad Lacharité	Ste. Perpétue	"	J.B. 6	Ste. Perpétue	I.C.R.	59·0	.....	.....	.....	.....	.....	.....
G. Binet	St. Eustache	Two Mountains	F & M 199	St. Eustache	C.P.R.	59·0	.....	.....	.....	.....	.....	.....
E. Brosseau	St. Sauveur des Monts.	Terrebone	E.B 1	St. Jérome	C.N.Q.R.	59·0	51·5	62·7	59·3	63·5	.....	.....
McNeil, Fréres	Douglasburg	Napierville	Douglasburg No. 1	Napierville	Nap Jct R	59·2	55·0	.....	53·0	.....	.....	.....
L. Martineau	Emile Ville	Bagot	Royal	St. Pie	C.P.R.	59·2	55·3	57·4	62·0	53·5	.....	.....
Désiré Milot	Yamachiche	St. Maurice	J.AM 6	Yamachiche	C.P.R.	59·3	48·3	.....	63·5	.....	.....	.....
L. A. Perrault	Stanfold	Arthabaska	CP 28	Stanfold	G.T.R.	59 3	.....	.....	60·0	.....	.....	.....
Alph. Perrault	Le Precieux Sang.	Nicolet	CM 58	Lac St. Paul	Q.M.S.R.	59·3	.....	.....	.....	.....	.....	.....
F. Phaneuf	Upton	Bagot	Peerless 3	Upton	G T.R.	59·4	52·5	51·0	53·5	54·5	.....	.....
A. Daneau	Aston Jct	Nicolet	CM 54	Aston Jct	I.C.R.	59·5	.....	.....	.....	.....	.....	.....
Mathias Brosseau	Piedmont	Terrebone	M B	Piedmont	C.P.R.	59·5	64·5	63·5	62·0	.....	.....	.....
W. Vezina	Cap Santé	Portneuf	WVCS	St. Basile	C.P.R.	59·5	58·3	57·6	66·2	59·3	.....	.....
Félix Rondeau	St. Emélie de L'Energie	Joliette	F.R	St. Félix de Valois	C.P.R.	59·5	56·5	51·0	.....	.....	.....	.....
Joseph Houle	St. Jean de Matha	"	J.H	"	C.P.R.	59·5	51·5	50·5	.....	.....	.....	.....
H. B. Bovin	St. Félix de Valois	"	H.B	"	C P.R.	59·5	60·2	56·0	.....	.....	.....	.....
J. B. Ravenelle	St. Damase	St. Hyacinthe	T&T 548	St. Damase	Q.M.S.R.	59·5	.....	.....	.....	.....	.....	.....
Amédé St. Hilaire	Ste. Germaine	Dorchester	LC 22	Ste. Germaine	Q.C.R.	59·5	.....	.....	.....	.....	.....	.....
J. Eug. Fortin	St. Cyrille	L'Islet	CP 68	L'Islet	I.C.R.	59·6	.....	.....	.....	.....	.....	.....
Syndicat Ste Justine	Ste. Justine	Dorchester	E.L 34	Ste. Justine	Q.C.R.	59·6	.....	.....	.....	.....	.....	.....
T. Messier	Ste. Héléne	Bagot	D	Bagot	I.C.R.	59·8	62·0	58·5	63·3	47·0	.....	.....
J. Dessert	Petite Rivière	Two Mountains	F 6	St. Eustache	C.P.R.	59·8	62·0	58·0	58·5	.....	.....	.....
Donat Gaudet	St. Sylvère	Nicolet	HOH 52	Daveluyville	I.C.R.	60·0	.....	.....	.....	.....	.....	.....
Joseph Lucas	St. Gabriel	Rimouski	Rose Hill 7	St. Luce	I.C.R.	60·0	63·0	.....	.....	.....	.....	.....
L. P. Paradis	St. Raphael	Bellechase	Canadian 76	St. Vallier	I.C.R.	60·0	56·6	55·4	58·6	55·8	.....	.....
Paul Robidoux	St. Marcel	Richelieu	W P 7	Cavignac	C.P.R.	60·0	61·3	53·5	.....	.....	.....	.....
Narcisse Tétreault	St. Hughes	Bagot	R 7	St Hugues	C.P R.	60·0	62·2	54·5	59·0	50·5	53·6	.....
Ludger Lacasse	St. Lucie de D	Terrebone	D 27	Ste. Agathe	C.P.R.	60·0	.....	.....	.....	.....	.....	.....
Louis Archambault	Lachevrotière	Portneuf	L A 20	St. Basile	C.P.R.	60·0	51·1	58·1	54·5	57·6	55·5	.....
S. Aumond	St. Come	Joliette	.....	Joliette	C.P.R.	60·0	.....	.....	.....	.....	.....	.....
Siméon Rodrigue	St. Georges	Beauce	WB 80	St. Georges	Q.C.R.	60·0	.....	.....	.....	.....	.....	.....
Hubert Jean	St. Evariste	"	D 22	St. Evariste	Q.C.R.	60·0	58·0	.....	.....	.....	.....	.....
M. Beauchesne	Pinnacle	Richmond	LC 186	Danville	G.T.R.	60·0	.....	.....	62·0	.....	.....	.....
M. Boucher	Ste. Mélaine	Joliette	M. Boucher	Joliette	C.N.Q.R.	60·0	58·1	53·3	52·5	56·5	60·0	.....
E. Brosseau	St. Sauveur des M	Terrebone	EB 5	St. Jérome	C.N.Q.R.	60·0	52 0	69·0	64·3	66·0	.....	.....
E. Desjardins	New Glasgow	"	ED	New Glasgow	C.N.Q.R.	60·0	.....	.....	.....	.....	.....	.....
C. Forget	Les Dalles	Montcalm	HBR 107	Montcalm	C.N.Q.R.	60·0	53·0	62·0	58·0	.....	.....	.....
A. Allard	L'Assomption	L'Assomption	AA	L'Assomption	C.N.Q.R.	60·0	57·5	.....	.....	.....	.....	.....
N. Frappier	St. Aimé	Richelieu	M 8	St. Aimé	Q.M.S.R.	60·0	.....	.....	56·0	.....	.....	.....
Marcoux	Ste Marie	Beauce	98	St. Marys	Q.C.R.	60·0	.....	.....	.....	.....	.....	.....

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS—*Continued.*

Average Temperatures of Creamery Butter at Shipping Points in the Province of Quebec for seven years, 1905 to 1911 inclusive: J. N. Lemieux, Inspector—*Continued.*

Name of Proprietor or Manager.	Post Office Address.	County.	Marks.	Railway Shipping Sation.	Railway.	Years.						
						1911.	1910.	1909.	1908.	1907.	1906.	1905.
						Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
E. Ménard	L'Islet	L'Islet	1374	Anse a Giles	I.C.R.	60·2	59·7	55·1	62·5	60·0	.....	.....
Ludger Lacasse	Ste. Lucie de D.	Terrebone	D. 39	St. Agathe	C.P.R.	60·3	60·0	55·0	57·2	.....	.....	.....
Nap. Lussier	Upton	Bagot	HBR 37	Upton	G.T.R.	60·3	52·5	57·8	58·8	.....	.....	.....
J. Lachapelle	St. Jacques	Montcalm	J. Lachapelle	St. Jacques	C.N.Q.R.	60·3	53·0	55·1	.....	53·5	.....	.....
Louis Fournier	St. Samuel	Beauce	Reg. 1028	St. Samuel	Q.C.R.	60·3	.....	.....	.....	.....	.....	.....
L. E. Coté	Montmagny	Montmagny	7	Montmagny	I.C.R.	60·4	60·7	58·2	59·5	61·0	.....	.....
Alfred Duquette	St. Brigitte des Saults	Nicolet	A 580	Mitchell	I.C.R.	60·5	64·5	.....	.....	.....	.....	.....
A. Legaré	St. Hippolyte de Ky.	Terrebone	ALL	Shawbridge	C.P.R.	60·5	50·2	64·5	64·5	64·5	.....	.....
A. Pelissier	St. Aime	Richelieu	NP 14	St. Louis	Q.M.S.R.	60·5	.....	.....	.....	.....	.....	.....
Alp. Roberge	St. Samuel	Beauce	D 45	St. Samuel	Q.C.R.	60·5	57·5	.....	.....	.....	.....	.....
Z. Cloutier	St. Pierre Riv. du Sud.	Montmagny	866	St. Pierre	I.C.R.	60·6	64·5	55·5	59·7	61·0	.....	.....
Philippe Laroche	St. Norbert	Arthabaska	G 51	Victoriaville	G.T.R.	60·6	.....	.....	.....	.....	.....	.....
Aurèle Leclerc	St. Eugène de G	Drummond	10	St. Eugène	I.C.R.	61·0	62·0	56·3	59·5	53·0	.....	.....
D. T. Brunet	St. Eustache	Two Mountains	GLM 32	St. Eustache	C.P.R.	61·0	61·8	.....	.....	.....	.....	.....
E. Casavant	Papineau	Rouville	EC 1	Papineau	C.P.R.	61·0	59·6	56·5	60·0	.....	.....	.....
O. Ratelle	St. Paul	Joliette	B 39	Lavaltrie	C.P.R.	61·0	59·2	.....	.....	.....	.....	.....
C. Robinson	Mascouche	L'Assomption	.....	Mascouche	C.P.R.	61·0	.....	61·5	.....	68·0	.....	.....
Noel Massé	St. Ephrem de Tring	Beauce	WD 38	St. Ephrem	Q.C.R.	61·0	60·0	54·6	56·9	54·8	.....	.....
Zenon Binet	St. Augustin	Two Mountains	CP 120	St. Augustin	C.P.R.	61·2	61·2	.....	.....	.....	.....	.....
Philémon Lebuis	Grande Frenière	"	316	St. Eustache	C.P.R.	61·3	62·5	63·6	61·0	.....	.....	.....
Aug. Ducharme	St. Jean de Matha	Joliette	Aug. Ducharme	St. Félix de Valois	C.P.R.	61·3	.....	.....	.....	.....	.....	.....
O. E. Rajotte	Upton	Bagot	Cedar Point 7	Upton	G.T.R.	61·3	55·0	56·2	58·2	52·5	.....	.....
Joseph Provost	L'Epiphanie	L'Assomption	H. Provost	L'Epiphanie	C.N.Q.R.	61·3	57·1	53·6	60·0	55·0	.....	.....
J. B. Boisclair	St. Samuel	Nicolet	A 374	St. Wenceslas	I.C.R.	61·5	.....	.....	.....	.....	.....	.....
Pierre Noel	St. Apollinaire	Lotbinière	P N 1	St. Apollinaire	I.C.R.	61·5	60·5	.....	.....	.....	.....	.....
Adrien Milot	Yamachiche	St. Maurice	A M	Yamachiche	C.P.R.	61·5	.....	.....	.....	.....	.....	.....
Lucien Robert	Yamachiche	St. Maurice	O G 32	Yamachiche	C.P.R.	61·5	53·2	63·0	.....	.....	.....	.....
D. Guilbault	St. Gabriel de B.	Berthier	D G	St. Gabriel	C.P.R.	61·5	53·8	52·0	45·3	54·3	.....	.....
Camille Joli	Ste. Emélie de L'Energie	Joliette	429	St. Félix de Valois	C.P.R.	61·5	57·0	56·5	.....	.....	.....	.....

Edouard Fréchette	St. Felix de Valois	Joliette	Reg. 1094	St. Felix de Valois	C.P.R	61·5	55·3	56·8				
Aldéric Dupré	St. Louis de Bonsecours	Richelieu	N P 16	St. Louis	Q.M.S.R.	61·5						
J. E. Dion	St. Sébastien	Beauce	D 34	St. Sébastien	Q.C.R	61·5	59·7					
Wm. Landreville	St. Jean de Matha	Joliette	HBR 91	St. Félix de Valois	C.P.R	61·6	57·5	55·2				
Joseph Bazinet	Wotton	Wolfe	Dale 18	Danville	G.T.R	61·6						
J. A. Drouin	La Baie	Nicolet	X X	La Baie	Q.M.S.R.	61·6	65·0					
Joseph Desroches	Ste. Beatrice	Joliette	R E 65	Joliette	C.N.Q.R.	61·7	54·0	51·0		53·0		
Zoel Larose	St. Cyrille de W	Drummond	J B 21	St. Cyrille	I.C.R	62·0						
H. Leroux	Ruisseau St. Georges	Montcalm	A E 44	St. Georges	C.N.Q.R.	62·0	52·0	52·1	52·6	51·0		
P. Dubaime	St. Samuel	Nicolet	A 429	St. Wenceslas	I.C.R	62·0						
Iréné Thibault	St. Pamphile	L'Islet	L C 6	St. Jean Port Joli	I.C.R	62·0	62·0					
Z. Laroque	St. Eustache	Two Mountains	Z L 28	St. Eustache	C.P.R	62·0						
Ovila Gendron	Yamachiche	St. Maurice	V 107	Yamachiche	C.P.R	62·0	59·8	60·4	64·2	65·2		
Philibert Dussault	Laprésentation	St. Hyacinthe	R 174	St. Hyacinthe	G.T.R	62·0						
E. Brosseau	St. Sauveur des M	Terrebonne	E B 4	St. Jérome	C.N.Q.R.	62·0	52·0	67·0	63·3	66·3		
Laporte & Frère	Kildare	Joliette	L F M	Joliette	C.N.Q.R.	62·1		53·5		52·8		
Valmore Geory	Milton East	Shefford	Sand Hill	St. Pie	C.P.R	62·2	59·3	51·0	62·0			
Thomas Lacerte	St. Sévère	St. Maurice	J A M 9	Yamachiche	C.P.R	62·2	56·5	62·2	63·6	61·5		
L. Bélanger	St. Damien	Bellechasse	25	St. Charles	I.C.R	62·5	53·3	54·4	55·1	59·0		
Albert Desrosiers	Ste. Beatrice	Joliette	A 575	Joliette	C N.Q.R.	62·5	58·0	52·5	58·0			
Geo. Tremblay	Laurence	Montcalm	L. J. A. R.	St. Georges	C.N.Q.R.	62·6	56·7	58·4	61·6	56·5		
J. Perron	St. Casimir	Portneuf	J P 1	St. Casimir	C.N.Q.R.	62·6	59·5					
L. S. Pelletier	Ste. Elizabeth de W	Arthabaska	G 1025	Warwick	G.T.R	63·0						
E. B. Cinq-Mars	Ste. Gertrude	Nicolet	HOH 6	Becancour	Q.M.S.R.	63·0						
Alf. Nault	Précieux Sang	Nicolet	O 225	St. Grégoire	Q.M.S.R.	63·0						
Hy. Cyr	Belle Rivière	Two Mountains	Genva	St. Scholastique	C.P.R	63·0	65·0					
W. Malo	St. Paul	Joliette	W M	Joliette	C.P.R	63·0	52·5	57·0	55·3	59.0		
Neveu & Tessier	Kildare	Joliette	P	Joliette	C.N.Q.R.	63·0	56·0					
J. B. Lalonde	St. Monique	Two Mountains	1065	St. Augustin	C.P.R	63·0	62·6					
J. St. Martin	St. Louis de Bonsecours	Richelieu	W P 15	St. Louis	Q.M.S.R.	63·2	63·0					
Hercule Leclerc	Portneuf	Portneuf	A 597	Portneuf	C.N.Q.R.	63·3		61·5				
A. Girard	St. Valerien	Shefford	HBR 23	Upton	G.T.R	63·3			58·0			
Ludger Lecompte	St. François	Montmagny	E & C 13	St. François	I.C.R	63·5	62·5	56·1	57·2	61·0		
H. J. Coté	St. Casimir	Portneuf	L A 25	St. Casimir	C.N.Q.R.	63·5	58·0					
Odilon Gélinas	Charette	St. Maurice	OGG	Charette	C.N.Q.R.	63·5	52·3	55·2	51·0	53·8	67·6	
Joseph Dufresne	St. Gabriel de B	Berthier	OD&S 110	St. Gabriel	C.P.R	63·6	62·0	52·0				
E. Vézina	Notre Dame de Ham	Wolfe	C P 45	Victoriaville	G.T.R	63·7						
Hector Larivière	St. Judes	St. Hyacinthe	Crescent 2	St. Judes	Q.M.S.R.	63·7			62·5	46·5		
E. Carrière	St. Gervais	Bellechasse	R 222	St. Charles	I.C.R	63·8	52·8					
Iréné Bergeron	St. Paul de Chester	Arthabaska	H A 134	Victoriaville	G.T.R	64·0						
Thériault & Frére	St. Alphonse	Joliette	36	Rawdon	C.N.Q.R.	64·0	58·2	53·5	55·0	55·0		
Louis Leblanc	St. Paul l'Ermite	L'Assomption	L L	St. Paul L'Ermite	C.N.Q.R.	64·0	60.0	66·0	59·0			
W. A. Oswald	Petit Brulé	Two Mountains	Elite	St. Augustin	C.P.R	64·2	61·8					
Philias Lavallé	St. Gabriel de B	Berthier	HBR 72	St. Gabriel	C.P.R	64·2		51·0	50·0	51·5		
Camille Bazinet	St. Zenon	Berthier	CB	St. Félix de Valois	C.P.R	64·2						
Fortin & Blanchet	Napierville	Napierville	Napierville No 1.	Napierville	Nap Jct R	64·2	57·3		60·0			
L. Ovide Roy	St. Vallier	Bellechasse	A 600	St. Vallier	I.C.R	64·5	64·5					
A. Lapointe	St. Paul	Joliette	A L	Joliette	C.N.Q.R.	64·5	58·4	59·1	55·0	52·0		
Albert Perrault	St. Judes	St. Hyacinthe	Crescent 1	St. Judes	Q.M.S.R	64·6		62·7	63·5			

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS—*Continued.*

Average Temperature of Creamery Butter at Shipping Points in the Province of Quebec for seven years 1905 to 1911 inclusive: J. N. Lemieux, Inspector—*Continued.*

Name of Proprietor or Manager.	Post Office Address.	County.	Marks.	Railway Shipping Station.	Railway.	Years.						
						1911.	1910.	1909.	1908.	1907.	1906.	1905.
						Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
J. A. Roy	St. Jean de Matha	Joliette	J A R	St. Félix de Valois	C.P.R	65·0	56·0	52·8	.....	.....	54·0	.....
Felix Bruneau	St. Mélanie	Joliette	F B	St. Felix de Valois	C.P.R	65·0	65·0	56·0	.....	.....	...	.....
J. A. Allaire	St. Roch L'Achigan	L'Assomption	J A A No. 1.	L'Epiphanie	C.N.Q.R.	65·0	59·0	59·6	62·8	56·0	...	.....
Rodolphe St. Jean	St. Barnabé	St. Hyacinthe	Morning Star	St. Barnabé	Q.M.S.R.	65·0	...	...	...	.....	.....	.....
Sam Pellerin	Kildare	Joliette	S P	Joliette	C.P.R	65·5	53·5	52·5	54·3	55·0	...	.....
Philippe Vadnais	Rougemont	Rouville	12	Rougemont	Q.M.S.R.	65·5	65·0	60·5	63·0	50·0	51·6	53·6
Hardy Frères & Cie	St. Angelique	Portneuf	H F & Cie	St. Basile	C.P.R	65·6	...	...	...	63·0	...	...
H. Bergeron	St. Paulin	Maskinongé	S T 37	St. Paulin	C.N.Q.R.	66·0	63·7	58·6	56·0	51·5	66·3	...
Frs. Robitaille	St. Damien	Berthier	F R	St. Gabriel	C.P.R	66·3	56·5	51·0	55·8	54·8	.....	.....
Eugène Desrochers	St. Charles du Mondeville	Montcalm	F P	St. Gabriel	C.P.R	66·5	62·5	52·0	.....	52·0	.....	.....
East & Cie	St. Augustin	Portneuf	E	St. Augustin	C.N.Q.R.	66·5	...	...	...	...	...	.....
W. Boucher	St. Barnabé	St. Maurice	D G	Charrette	C.N.Q.R.	66·6	62·2	59·3	61·6	.....	.....	.....
Frs. Ledoux	St. Damase	St Hyacinthe	T&T Canada	St. Damase	Q.M.S.R.	67·0	...	...	...	...	.....	.....
Anselme Plante	St. Félix de Valois	Joliette	O D & S 73	St. Félix de Valois	C.P.R	67·0	60·0	...	...	...	...	.....
Edouard Desrosiers	St. Félix de Valois	Joliette	H B H 16	St. Félix de Valois	C.P.R	67·0	57·6	...	...	...	...	.....
M. Bourassa	St. Barnabé	St. Maurice	M B	Charrette	C.N.Q.R.	68·0	64·0	...	...	...	...	.....
J. A. Heroux	St. Elie de Caxton	St Maurice	J A M 19	Charrette	C.N.Q.R.	68·0	61·3	...	...	...	...	.....
Ulric Olivier	St. Thomas	Joliette	X 24	St. Thomas	C.P.R	68·0	...	...	...	...	...	...
Albéric Olivier	St. Thomas	Joliette	250	St. Thomas	C.P.R	68·0	...	...	...	...	...	.....
Geo. Plourde	Chacoura	Maskinongé	O G 43	St. Paulin	C.N.Q.R.	68·5	...	...	...	...	...	...
Philias Allard	St. Alexis des Monts	Maskinongé	J A M 18	St. Paulin	C.N.Q.R.	68·5	63·0	60·2	60·0	51·5	66·3	.....
J. E. Grenier	Hunterstown	Maskinongé	O G 12	St. Paulin	C.N.Q.R.	69·0	62·5	61·4	62·6	.....	.....	.....
J. G. Bédard	Paré	Portneuf	L A 7	Lachevrotière	C.N.Q.R.	69·0	...	...	...	...	...	.....
J. R. Coutu	St. Gabriel de B	Berthier	J R Coutu	St. Gabriel	C.P.R	70·5	66·0	54·3	57·8	55·3	58·6	.....
S. Boulerice	St. Edouard	Napierville	S B	St. Edouard	Nap Jct R	71·0	65·0	.....	.....	.....	.....	.....

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS—*Continued.*

Average Temperatures of Creamery Butter at Shipping Points in the Province of Quebec for Seven Years, 1905 to 1911 inclusive, F. A. Knowlton, Inspector.

Name of Proprietor or Manager.	Post Office Address.	Marks.	Railway Shipping Station.	Railway.	Years.						
					1911.	1910.	1909.	1908.	1907.	1906.	1905.
					Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
G. G. Griggs	Mansonville	Green Valley	Mansonville	O. M. & C. P.	44·0	47·1	45·0	46·5	48·5	51·2	52·7
Mennier	Granby	M. 6	Granby	C. V. R.	44·0	.....	.....	.....	.....	.....	.....
J. Labelle	Vale Perkins	Vale Perkins	Mansonville	O. M. & C. P.	44·8	45·0	45·2	45·5	47·9	51·2	52·5
W. K. Baldwin	Baldwin's Mills	B. M.	Coaticook	G. T. R.	46·0	48·6	52·5	54·0	43·6	.....	.....
D. W. Leblanc	Bedford	Silver Star	Bedford	C. P. R.	46·7	.....	.....	.....	.....	.....	.....
A. B. Lebine	Holton	A. P. Lebine	St. Remi	G. T. R.	47·3	54·5	50·0	55·5	53·5	48·3	49·4
.....	Smith's Mills	Griffin's C.	.....	B. M. & C. P. R.	47·5	.....	49·5	.....	.....	.....	.....
S. Raboin	St. Edwidge de Clifton	Maple Leaf	Coaticook	G. T. R.	47·6	56·8	65·5	51·8	51·4	.....	.....
John McCrum	Iron Hill	Crown	West Shefford	C. P. R.	48·2	46·5	47·9	49·2	45·5	43·9	43·3
E. B. Dupuis	Coaticook	S. B. No. 1	Coaticook	G. T. R.	48·6	52·6	46·6	55·0	36·6	.....	.....
.....	Dixville	Dale 6	Dixville	G. T. R.	49·0	.....	.....	.....	.....	.....	.....
L. Ladouceur	St. Edwidge de Clifton	Rose 11	Coaticook	G. T. R.	49·3	45·5	46·0	51·8	39·5	.....	.....
H. R. Standish	Magog	Magog Creamery	Magog	B. & M. & C. P. R.	49·3	47·4	46·9	47·3	45·5	48·0	47·3
Bureau & Gilbert	Compton	Canada A. 2	Compton	G. T. R.	49·5	47·2	45·0	57·4	49·6	.....	.....
F. Bouchard	Eastman	Silver Lake	Eastman	O. M. & C. P. R.	49·5	45·3	44·0	44·0	50·0	44·1	51·1
Raboin & Raboin	Compton	Compton	Compton	G. T. R.	49·6	48·6	56·2	53·6	49·8	42·6	43·3
E. Sharkey	Cherry River	Mount Orford	Magog	B. & M. & C. P. R.	49·7	46·2	47·0	51·1	48·5	48·5	.....
J. Leclair	Foster	Foster C.	Foster	C. P. R.	50·2	54·0	.....	.....	.....	.....	.....
M. Lapalme	Granby	Pauline	Granby	C. V. R.	50·5	61·0	.....	.....	.....	.....	.....
Rev. A. Tremblay	St. Hermenegilde de B.	Canada A. 40	Coaticook	G. T. R.	50·6	47·1	49·0	53·1	41·5	45·3	47·4
L. Caron	Katevale	T. & T. 546	Magog	B. & M. & C. P. R.	51·1	49·3	49·0	54·2	50·5	51·8	56·3
M. Riders	Fitch Bay	Fitch B. C.	Smith's Mills	B. & M. & C. P. R.	52·0	50·0	48·5	48·8	46·7	51·5	49·0
W. Chapman	Shefford Mountain	Shefford Mt. C.	Granby	C. V. R.	52·0	.....	.....	.....	.....	.....	.....
.....	.....	.....	St. Sabine	C. P. R.	52·0	.....	.....	.....	.....	.....	.....
W. R. Tannerhill	Ormstown	Aberdeen 1.	Ormstown	G. T. R.	52·0	54·0	.....	.....	.....	.....	.....
E. H. Hunter	Stanbridge East	Stanbridge East	Stanbridge East	C. V. R.	52·0	.....	47·6	50·9	43·5	.....	.....
W. W. Reed	North Hatley	W. W. Reed	North Hatley	B. & M. & C. P. R.	52·3	45·3	49·0	.....	41·9	43·2	47·5
H. Archambault	Farnham	Rapid River	Farnham	C. V. R.	52·3	49·0	.....	.....	.....	.....	.....
Juaire & Dussault	Knowlton	Knowlton C.	Knowlton	C. P. R.	52·7	46·8	48·1	48·5	46·2	49·8	47·1
E. McGowan	St. Martine	E 44.	St. Martine	G. T. R.	53·0	53·0	.....	.....	.....	.....	.....
Z. Lawrence	West Shefford	W. S. Creamery	W. Shefford	C. P. R.	53·1	.....	49·5	50·2	46·6	47·7	47·1
H. Purdy	Melboro	Melboro	Kingsbury	O. M. & C. P. R.	53.1	49·2	51·0	47·5	48·8	48·5	.....

TEMPERATURES OF QUEBEC AND ONTARIO BUTTER AT COUNTRY SHIPPING POINTS—*Continued.*

Average Temperatures of Creamery Butter at Shipping Points in the Province of Quebec for Seven Years, 1905 to 1911 inclusive, F. A. Knowlton, Inspector—*Continued.*

Name of Proprietor or Manager.	Post Office Address.	Marks.	Railway Shipping Station.	Railway.	Years.						
					1911.	1910.	1909.	1908.	1907.	1906.	1905.
					Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
L. Smith	St. Armand	R. R. Co.	St. Armand	C. V. R.	53·2	.....	.....	.....	.....	.....	.....
H. Blanchard	St. Etienne de Bolton	St. Etienne C.	Eastman Jct.	B. & M. & C. P. R.	53·3	53·9	52·9	52·3	52·0	.....	.....
A. Gerin	Coaticook	Dale 50	Coaticook	G. T. R.	53·3	49·5	46·6	49·4	48·1	48·8	50·2
Z. Bosquet	Granby	65	Granby	C. V. R.	53·7	.....	.....	.....	.....	.....	.....
B. A. Langdon	South Stukeley	South S. C.	S. Stukeley	B. & M. & C. P. R.	54·0	.....	.....	.....	.....	.....	.....
.....	East Hatley	981	Ayer's Cliff	B. & M. & C. P. R.	54·0	.....	.....	.....	.....	.....	.....
J. M. Hastings	Stanbridge	White Star C.	Stanbridge	C. V. R.	54·0	.....	.....	.....	.....	.....	.....
J. McKay	Hatley Centre	H. B. R. 8	North Hatley	B. & M. & C. P. R.	54·3	43·0	48·8	52·8	46·3	43·7	48·4
J. Cote	Mystic	Mystic Gem	Mystic	C. P. R.	54·5	.....	.....	.....	.....	.....	.....
.....	.....	Reg. 847	Knowlton	C. P. R.	54·6	.....	.....	.....	.....	.....	.....
Fourneau & Stewart	Hemmingford	Hemmingford 1	Hemmingford	G. T. R.	54·6	58·0	49·0	60·0	45·3	50·8	56·6
P. W. Bonneau	Laroche	Maple Leaf	West Shefford	C. P. R.	55·0	.....	49·0	50·0	46·8	49·4	52·9
W. Murray	Waterloo	Waterloo C.	Waterloo	C. V. R.	55·0	.....	.....	.....	.....	.....	.....
.....	Wayville	Wayville C.	Ayer's Cliff	B. & M. & C. P. R.	55·3	.....	.....	.....	.....	.....	.....
B. E. Converse	Barnston Corner	Barnston C.	Coaticook	G. T. R.	55·3	50·0	51·4	50·9	48·2	49·5	53·6
A. Menard	Lawrenceville	B. 9	Lawrenceville	O. M. & C. P. R.	55·3	.....	.....	.....	.....	.....	.....
J. St. Pierre	Roxton Pond	Lake Edge	South Roxton	C. P. R.	55·7	58·7	.....	.....	.....	.....	.....
P. Delorme	South Roxton	45	"	C. P. R.	55·8	57·6	.....	.....	.....	.....	.....
.....	.....	R. 56	.....	B. & M.	56·0	.....	.....	.....	.....	.....	.....
J. Delorme	Ste. Brigide	O. D. & S. 64	St. Brigide	C. V. R.	56·3	.....	.....	.....	.....	.....	.....
A. Delage	Magenta	M. 85	Farnham	C. V. R.	56·4	56·0	.....	.....	.....	.....	.....
H. W. Winters	Tatehurst	Tatehurst C.	Ormstown	G. T. R.	56·6	57·4	52·0	.....	.....	.....	.....
Lennoxville Dairy Ass.	Lennoxville	Lennoxville C.	Lennoxville	B. & M. & C. P. R.	56·6	.....	.....	.....	.....	.....	.....
Fairfax Butter Assoc.	Fairfax	Meadow Bank	Ayer's Cliff	B. & M. & C. P. R.	56·8	.....	.....	.....	.....	.....	.....
H. Archambault	Farnham	Lily 1	Farnham	C. V. R.	56·8	50·6	.....	.....	.....	.....	.....
Fredette & Painchaud	Sherrington	F. & P. No. 1	Sherrington	G. T. R.	57·3	56·5	62·0	57·4	52·3	52·6	55·0
A. E. Fish	Ayer's Cliff	Ayer's Cliff	Ayer's Cliff	B. & M. & C. P. R.	58·0	49·5	50·2	.....	49·4	48·0	51·0
S. Leduc	Haseville	S. L. 22	Durocher	C. V. R.	58·3	.....	52·6	55·0	.....	.....	.....
H. E. Reynolds	South Roxton	H.	South Roxton	C. P. R.	58·5	.....	.....	.....	.....	.....	.....
Frs. Robillard	St. Edouard de Napierville	F. R.	St. Remi	G. T. R.	58·6	.....	.....	.....	.....	.....	.....
J. A. Brault	St. Alexandre	Reg. 759	St. Alexandre	C. V. R.	59·5	.....	.....	.....	.....	.....	.....
L. Gevry	Milton East	B. 55	Granby	C. V. R.	60·0	65·0	.....	.....	.....	.....	.....

R. E. Scott	St. Joachim	Maple Grove	South Roxton	C. P. R.	60·0	.....	.....	.....	.....	.....	.....
L. J. Poupart	St. Remi	Maple Leaf	St. Remi	G. T. R.	61·3	.....	.....	.....	.....	.....	.....
Chicoine	Versailles	F. & M. 75	Versailles	C. V. R.	62·5	.....	.....	.....	.....	.....	.....
L. J. Poupart	St. Isidore	J. J. P. 1171	St. Isidore	G. T. R.	63·2	.....	55·5	.....	.....	53·0	61·3
J. B. Primeau	St. Martine	G. 370	St. Martine	G. T. R.	63·3	.....	.....	.....	.....	.....	.....
C. E. Rivest	Sherrington	R.	Sherrington	G. T. R.	64·3	.....	.....	.....	.....	.....	.....

Average Temperatures of Creamery Butter at Shipping Points in the Province of Ontario, Season 1911.—(Inspector H. G. Shufelt.)

Proprietor or Manager.	Post Office Address.	Railway Shipping Stations.	Railway.	No. of Packages Tested.	Average Temperature.
					Deg.
John Logie	Paisley	Paisley	G.T.R.	7	44·9
Forest Creamery Co.	Forest	Forest	"	7	46·3
Lang & Cunningham	Harrow	Harrow	P.M.R.	6	48·5
A. Aldrich	Selkirk	Nelles Corners	G.T.R.	10	51·4
R. H. Newman	East Oro	Orillia	"	6	52·5
John H. Scott	Exeter	Exeter	"	7	53·1
W. Kaufman	Hagersville	Hagersville	"	9	54·7
Wm. Newman	Lorneville	Lorneville Jct.	"	6	55·2
W. G. Mead	Exeter	Exeter	"	16	56·8
Bluevale C. Co.	Bluevale	Bluevale	"	9	57·2
D. Aldrich	Tiverton	Kincardine	"	9	57·2
T. A. Stevens	Wheatley	Wheatley	P.M.R.	11	57·3
R. A. Thomas	Beeton	Beeton	G.T.R.	4	58·3
A. G. Calder	Seaforth	Seaforth	"	7	59·3
A. A. Keillion	Dutton	Dutton	P.M.R.	7	59·6
W. B. Kent	Delhi	Delhi	G.T.R.	4	60·8
C. E. Birkett	West Lorne		P.M.R.	7	61·1
Valleau & Coukell	Gooderham	Lindsay	G.T.R.	5	61·8
L. O. Jackson	Mitchell	Mitchell	"	4	63·3
J. J. Parsons	Jarvis	Jarvis	"	7	70·4

Temperatures of Ontario and Quebec Butter at Shipping Points and at Montreal, Season 1911.

—	Number of Cars with Marked Packages.	No. of Packages tested at Shipping Points and at Montreal.	Average Temperature at Shipping Points.	Average Temperature at Montreal.	Increase in Temperature.	Reduction in Temperature.
			Deg.	Deg.	Deg.	Deg.
Ontario via C.P.R.	2	7	45·6	49·4	3·8	.....
" G.T.R.	4	42	60·6	53·6	.....	7·0
" P.M.R.	1	4	64·0	55·5	.....	8·5
Quebec (north of St. Lawrence) via C.P.R.	7	169	56·7	55·7	.....	1·0
Quebec (south of St. Lawrence) via C.P.R.	28	173	52·5	52·5	.....	.....
Quebec via I.C.R.	9	202	54·9	53·9	.....	1·0
" G.T.R.	11	142	55·3	57·8	2·5	.....
" Q.M. & S.R.	3	65	57·9	59·3	1·4	.....
" Q.C.R.	1	50	53·4	52·9	.....	0·5
" C.N.Q.R.	4	24	63·1	61·7	.....	1·4
" C.V.R.	4	47	55·0	55·6	0·6	.....
Totals	74	925	.....	.....	.....	.....
General Average	.....	.....	55·6	55·3	.....	0·3
Season 1910, general average	.....	.....	54·5	53·8	.....	0·7
" 1909 "	.....	.....	52·6	51·7	.....	0·9
" 1908 "	.....	.....	54·9	54·4	.....	0·5
" 1907 "	.....	.....	51·3	50·5	.....	0·8
" 1906 "	.....	.....	52·6	53·2	0·6	.....
" 1905 "	.....	.....	54·4	54·5	0·1	.....

Comparative Temperatures of Butter for the past Seven Years when delivered to the steamers at Montreal and unloaded at the Port of Discharge in Great Britain

—	No. of Pkgs. Tested.	Average Temperature at Montreal.	Average Temperature at Port of Discharge.	Average Increase in Temperature during Voyage.	Average Reduction in Temperature during Voyage.
		Deg.	Deg.	Deg.	Deg.
Montreal to Liverpool—					
Season 1905	843	39·3	24·9	.....	14·4
" 1906	456	39·2	21·4	.....	17·8
" 1907	183	33·7	23·1	.....	10·6
" 1908	86	37·5	25·0	.....	12·5
" 1909	43	37·6	25·7	.....	11·9
" 1910	58	35·7	22·1	.....	13·6
" 1911	183	35·5	24·1	.....	11·4
Montreal to London—					
Season 1905	859	40·2	26·6	.....	13·6
" 1906	527	41·7	20·5	.....	21·2
" 1907	217	36·2	15·3	.....	20·9
" 1908	153	39·6	18·2	.....	21·4
" 1909	87	36·3	22·9	.....	13·4
" 1910	46	33·2	17·2	.....	16·0
" 1911	113	38·2	22·8	.....	15·4
Montreal to Bristol—					
Season 1905	607	36·9	23·9	.....	13·0
" 1906	361	36·9	23·9	.....	13·0
" 1907	186	35·4	22·9	.....	12·5
" 1908	226	35·3	23·5	.....	11·8
" 1909	148	31·5	21·3	.....	10·2
" 1910	207	29·5	21·8	.....	7·7
" 1911	340	35·5	26·3	.....	9·2
Montreal to Glasgow—					
Season 1905	403	35·8	28·7	.....	7·1
" 1906	374	35·0	24·1	.....	10·9
" 1907	183	35·9	19·2	.....	16·7
" 1908	75	35·0	23·9	.....	11·1
" 1909	79	32·4	22·7	.....	9·7
" 1910	35	31·9	23·7	.....	8·2
" 1911	74	33·3	25·9	.....	7·4
Montreal to Manchester—					
Season 1905	87	34·4	30·4	.....	4·0
" 1906	33	41·2	38·8	.....	2·4
" 1907	7	40·9	34·0	.....	6·9
" 1908	.....	.....	.....	.....	.....
" 1909	11	28·8	33·5	4·7	.....
" 1910	5	35·2	32·0	.....	3·2
" 1911	.....	.....	.....	.....	.....

THE CHEESE TRADE.

By the end of March the export cheese trade for the season of 911-12 was practically at an end and although the total quantity exported was somewhat less than in the preceding fiscal year, the value was greater owing to higher prices. According to our statement of weekly prices, the lowest quotation for cheese in Montreal during the year was 10⅝c. at the end of May, 1911, and the highest 15⅝c. on January 10, 1912. In New York the range for 'Fancy Whole Milk, Coloured' was from 11¾c. in June and July, 1911, to 18¾c. in March, 1912.

The annual reports of the cargo inspectors in Great Britain, which appear on pages 46 to 61, while clearly indicating that Canadian cheese continues in good repute in the old country markets, also reflect a few drawbacks which are hampering the trade. Prominent among these is the perennial complaint *re* broken boxes which has been a bugbear of the export trade for years and which is still awaiting solution.

As this matter is treated at some length in the reports of the inspectors I do not propose to take up space with it here beyond quoting an extract from a regular cargo report received from our Glasgow inspector in December last which deals with the condition of the boxes in a consignment of cheese landed by a Montreal steamer about the end of November.

EXTRACT FROM GLASGOW CARGO INSPECTOR'S REPORT.

'The cheese from this steamer arrived in good condition but the boxes were landed in a disgraceful state, owing largely to ill-fitting or poor quality boxes; C.S. brand were exceedingly bad and most factories had poor slim boxes or irregular in fit, many being too large for cheese either in width or depth.

C.S.	634 Rosevale No. 2	out of	25	boxes	9	were tied and	10	broken.
"	635 Golden 1	"	18	"	7	"	4	"
"	636 Templeton No. 3	"	20	"	7	"	5	"
"	637 J. B. C.	"	23	"	8	"	5	"
"	638 Templeton No. 2	"	25	"	7	"	6	"
"	639 Rosevale Factory	"	26	"	14	"	5	"
"	640 Templeton No. 1	"	20	"	8	"	7	"
"	642 J. B. 4	"	51	"	23	"	8	"
"	646 Louisa Factory	"	21	"	4	"	4	"
"	648 C. P. 10	"	33	"	11	"	7	"
"	649 C. P. 21	"	24	"	7	"	3	"
	Totals.....		286		105		64	

The tied boxes mean those that were broken when they reached the ship's side at Montreal and were there bound with rope so that they would carry to destination

The percentage of breakage in the above consignment was 59 per cent and it will be noticed that the causes assigned by the inspector for the bulk of the breakage were ill-fitted boxes and poor quality of material.

CHEESE TRANSPORTATION.

The fact that the weather in July and August was exceedingly hot was responsible for a greater demand than usual for refrigerator cars and our returns from the railway companies show that more iced cars were used in the cheese traffic during the summer of 1911 than in any previous year. It is now generally agreed that the cool transportation of cheese is attended by beneficial results and it is in the interests of factorymen, and of every one connected with the industry in fact, that all shipments of cheese going forward during warm weather should be carried in refrigerator cars. It is, of course, essential that each car should be properly iced as, without ice in the bunkers, a refrigerator car is the worst possible place for cheese in hot weather.

Ideal conditions for export cheese would include cool curing rooms in the factories, iced refrigerator cars on the railways and cooled air accommodation in the steamships. The latter two conditions are practically available now for every shipper and the movement for cool curing rooms is making headway.

THE FRUIT TRADE.

The outstanding feature of the Canadian fruit trade during the season of 1911-12 was the huge apple crop in Nova Scotia, reaching almost one and three quarter million barrels or more than twice as much as in any previous year. In view of the enormously increased production, growers, shippers and transportation companies are to be congratulated on the manner in which the crop was handled and distributed.

The following statement shows the total quantity shipped to the various markets abroad and also an estimate of the quantity sold in Western Canada and in the local markets in the Maritime Provinces.

SHIPMENTS OF APPLES FROM NOVA SCOTIA, 1911-12.

Shipped to—	Barrels.	Half Barrels.	Boxes.
London	783,115	2,010	4,518
Liverpool	241,080	55	612
Glasgow	163,317	2	2,769
Hamburg	116,112	.....	547
Bristol	28,644	.....	.....
Manchester	21,090	.....	.....
Hull	17,547	.....	.....
Newfoundland	16,394	19	215
South Africa	5,368	.....	1,350
Boston	5,250	.....	.....
West Indies	3,831	.....	.....
Netherlands	1,821	.....	.....
Havana	775	.....	.....
	1,404,344		
Western Canada (estimated)	100,000		
Quebec and Ontario	76,150		
Maritime Provinces (estimated)	150,000		
Total	1,730,494	2,086	10,011
Equal to 1,734,876 barrels.			

It will be noted that Nova Scotian shippers invaded the Northwest market to the tune of 100,000 barrels, which was not too bad for a first attempt. On the whole the shippers were well pleased with their returns and they claim that they will cater regularly to that market in future.

EXPORT FRUIT TRADE.

An additional outlet for Canadian apples was afforded the past season by the demand for imported apples in Germany and the fact that the fiscal relations between that country and Canada are now once more in a normal condition. Owing to the heat and drought prevalent on the Continent last summer, the German apple crop was very poor and as a result large direct shipments have gone forward from Halifax to Hamburg. While apples are widely grown in Germany general climatic conditions, except in a few districts in the south, are unfavourable for the production of high class fruit and, as a rule, that country is a large importer of apples, the market varying, of course, according to the size of the home crop and the prosperity of the people. During the four years 1907 to 1910 inclusive the average yearly importation of apples into Germany was the equivalent of 2,548,813 barrels. The major portion of their supply, however, is imported in bulk from the neighbouring countries of Austria-Hungary, Switzerland and Italy, and is admitted free of duty up to November 30. After that date the tariff is 21 cents per hundred pounds compared with 34 cents per hundred pounds on apples from Canada at any time of the year. There is a good demand in Germany for a limited quantity of high grade apples packed in boxes but the quality must be strictly "fancy" and the packing first class. The Pacific States have been shipping boxed apples to Germany since 1909 and the growers are properly jealous of the fine reputation they have obtained in that market. Their carefulness in this respect is well illustrated by what was told me by a gentleman who recently returned

from a visit to Oregon. When he was in Hood River the manager of the Co-Operative Apple Grower's Association there showed him an order from Germany for a car (630 boxes) of Spitz and a car of Newtown Pippins at $2 per box f.o.b., Hood River, and a draft for the amount was enclosed with the order. The crop was light in that section, however, and the manager did not consider he had the right stock on hand to fill the order so he returned the money with a letter of explanation. Many of our apple shippers, if afforded a similar opportunity, would have kept the money, shipped the best stock they had—and sent the letter of explanation later.

The following table shows the quantity and value of apples exported from Canada in the years ended March 31, 1904 to 1912, inclusive:—

Year ended March 31.	Barrels.	Values.
1904	1,577,285	4,529,500
1905	977,488	2,551,474
1906	1.280,789	4,217,704
1907	998,618	2,702,623
1908	1,629,400	4,823,645
1909	1,092,090	2,804,282
1910	1,604,477	4-417,926
1911	523,658	1,756,884
1912	1,664,165	5,104,107

TARIFFS ON FRESH APPLES.

As I am sometimes asked for the rate of duty imposed by different countries in which Canadian apples are sold, it may be useful if I quote herewith the tariffs in the countries named:—

Germany.....34·6 cents per 100 pounds.
Netherlands.....5 per cent ad valorem.
Italy.....11·4 cents per 100 pounds
South Africa.....Free.
Newfoundland.....50 cents per barrel.
Bahamas.....61 cents per barrel.
Bermudas.....Free.
Cuba.....27.27 cents per 100 pounds and 30 per cent surtax.
Jamaica.....16⅔ per cent ad valorem.
United States.....25 cents per bushel.

The shipment of Canadian peaches to Great Britain, the practicability of which was demonstrated by this Department in 1910, was continued in 1911 by private shippers, about four thousand single layer cases going forward in September and October. The fruit was shipped to Montreal mainly by refrigerator car and fast freight and it was carried in refrigerator chambers in the steamships at a temperature of about 36°. The peaches were landed in first class condition and realized remunerative prices.

Respectfully submitted,

W. W. MOORE,
Chief Markets Division.

APPENDIX III.

REPORT ON THE WORK OF THE FRUIT DIVISION.—(BY A. MCNEILL, CHIEF.)

SIR,—I beg leave to present my report for the year ending March 31, 1912.

THE STAFF.

The staff remains the same this year as last, with one additional permanent inspector and three additional temporary men, making thirteen permanent inspectors and twenty temporary inspectors.

Mr. G. H. Vroom has general oversight of the work in the maritime provinces. Mr. T. A. Peters has been working in Prince Edward Island during the whole year. Five temporary inspectors were located in Nova Scotia this season working, for the most part, at the docks in Halifax. In addition to these, it was deemed expedient to appoint Messrs. G. H. Shufelt and J. L. Cook, cargo inspectors, as temporary fruit inspectors for the season. This enabled them not only to fulfil their duties as cargo inspectors, but to devote their spare time to helping on the docks, for which work they were well qualified. For the second season, 4 coopers were appointed as helpers to open and close barrels. This very greatly increased the amount of work the inspectors could do, as it relieved them of much purely mechanical work in connection with the inspections, and insured the greatest possible care in handling the fruit and packages.

A temporary inspector has been working for the season in New Brunswick, chiefly at the port of St. John.

A temporary inspector was located at Quebec and worked from Montreal eastward through the province. Messrs. F. L. Dery, John McCabe and E. H. Wartman are located at Montreal; they are assisted during the shipping season by two or three temporary inspectors, depending upon the rush of work. Four helpers are also employed at Montreal during the shipping season.

Col. W. W. Brown was designated Senior Inspector at Montreal and Lake Ontario points. During the early part of the season he was assisted by one temporary inspector. At the close of the shipping season in Montreal, the inspectors located there, with the exception of Mr. Dery, were moved to the warehouses in the Lake Ontario District, where they continued to work until the close of the packing season in March.

Mr. P. J. Carey is located in Toronto. The greater part of his time is given to instruction work in packing, and in addressing meetings on general fruit subjects.

During the orchard packing season, a temporary inspector was employed in the Niagara District, one along the north shore of Lake Erie, and another in the Lake Huron counties.

The Georgian Bay district was covered by Mr. A. Gifford in the early part of the season and, later, by Mr. G. B. Carnahan. A temporary inspector was employed at Port Arthur and Fort William, who paid visits to Sault Ste. Marie, Kenora and other points in the district.

A permanent inspector, Mr. Chris. Campbell, was located at Winnipeg, and was assisted by a temporary inspector, with the result that the province was fairly well covered.

Two temporary inspectors were appointed for work in Saskatchewan, with headquarters at Regina and Saskatoon.

Inspector M. P. McNeill is permanently located at Calgary, and his territory covers the distributing points north and east. A temporary inspector was located at Lethbridge, working not only in the city but in the surrounding district.

Three officers of the Customs Department, Messrs Bunyan, Cook and McLeod, act as fruit inspectors and look after the fruit coming into Nelson, Grand Forks and Prince Rupert respectively. Mr. D. M. Robertson, a permanent inspector, is located at Vancouver, visiting Victoria and all important points on the southern mainland.

INSPECTION STATISTICS.

The following table gives comparative statements of the number of lots inspected, and the number of packages inspected for the seasons 1908-09, 1909-10, 1910-11 and 1911-12.

Variety.	No. of Lots. Inspected.	No. of pkgs. in Lots Inspected.	No. of pkgs. Inspected.
1908-09.			
Apples ..... Brls.	5,940	682,657	42,223
" ..... Boxes.	248	100,792	2,701
Pears ..... "	88	54,150	7,924
Peaches ..... "	91	140,976	16,005
Plums ..... Baskets.	54	16,505	1,474
Tomatoes ..... "	53	11,381	779
Small fruits ..... Quarts.	863	1,184,651	154,874
1909-10.			
Apples ..... Brls.	7,736	859,572	63,232
" ..... Boxes.	902	157,939	7,363
Pears ..... "	248	41,459	2,738
Peaches ..... "	410	60,248	3,817
Plums ..... Baskets.	264	62,883	4,257
Tomatoes ..... "	149	50,043	3,241
Apricots ..... Boxes.	11	12,495	481
Small fruits ..... Quats.	2,491	2,310,264	240,751
1910-11.			
Apples ..... Brls.	4,527	360,768	26,890
" ..... Boxes.	1,347	234,182	9,829
" ..... Baskets.	171	17,551	10,393
Pears ..... Boxes.	371	40,681	2,750
Peaches ..... "	11	2,269	36
" ..... Baskets.	383	70,564	5,932
Tomatoes ..... "	56	6,570	601
Plums ..... "	189	50,575	5,144
Small fruits ..... Quarts.	1,502	568,510	155,048
1911-12.			
Apples ..... Brls.	13,548	1,085,300	67,706
" ..... Boxes.	1,235	162,249	10,178
Pears ..... "	389	32,252	2,655
Peaches ..... "	38	9,487	268
" ..... Baskets.	365	34,606	2,864
Plums ..... "	336	88,894	7,554
Tomatoes ..... "	66	48,530	2,012
Small fruits ..... Quarts.	2,120	2,729,143	298,591

CONVICTIONS FOR ILLEGAL MARKING AND PACKING OF FRUIT.

The convictions under the Inspection and Sale Act, Part IX, have decreased again this year. This does not mean that the vigilance of the inspectors has been relaxed in any way, but points directly to an improvement in the packing and marking of fruit packages. The educative processes, particularly by means of the Inspec-

tion and Sale Act, by fruit meetings, by organization into co-operative associations and by the general diffusion of helpful fruit literature, have all contributed to this happy result.

The following is a list of those who have been convicted during the season of 1911-12 of violation of the Inspection and Sale Act, Part IX:—

ONTARIO—

C. F. Chase	Frankford.
John Coyle	Colborne.
J. N. Dalmas	Wooler.
J. L. Denike	Prinyer.
J. C. Dudley & Sons	Bowmanville.
W. C. Hazlitt	Adolphustown
William Hoar	Whitby.
J. M. Hudgin	Picton.
J. R. Jenkins	South Bay.
Kelley Bros	Colborne.
P. Mack	South Bay.
Albert Mathers	Sarnia.
R. Miller	Cressy.
Howard McComb	Oron.
C. Ostrander	South Bay.
H. Putman	Northport.
Roy Bros	Tyrone.
R. K. Scott	Port Hope.
R. S. Smythe	Oshawa.
M. Storms	Cressy.
Doney Thompson	South Bay.
J. M. Thompson	Bagnor.
William White	Sarnia.

NOVA SCOTIA—

T. B. Akin	Falmouth.
Howard Bligh & Son	Halifax (2 convictions).
A. Curry	Falmouth.
H. D'Almaine	Wolfville.
G. C. DeWolf	New Minas.
G. W. DeWolf	Three-Mile Plain.
R. J. Graham	Windsor (3 convictions).
W. C. Hamilton	Grand Pré.
R. E. Harris	Wolfville.
R. E. Harris & Son	"
J. H. Hunter	Mount Denison.
R. A. Jodrey	Gaspereaux.
Kingston Fruit Co., Ltd	Kingston.
H. C. Marshall	Williamston.
A. L. Outhit	Kingston.
W. W. Pineo	Waterville.
Geo. Power	Kingston.
J. Sexton	Falmouth.
H. A. Spence	St. Croix
M. L. Warner	Kingston.

ALBERTA—

McPherson Fruit Company	Lethbridge.

BRITISH COLUMBIA—

Guen Wo & Co	Vancouver.
Haung Shing & Co	"
Hong Kee	"

MEETINGS.

An interesting feature of the work of the staff is the fruit meetings which they have attended. The inspectors have excellent facilities, especially in certain lines for acquiring information with reference to fruit shipments and fruit packages, and they are in demand wherever fruit growers meet together.

Members of the staff have assisted at meetings as follows:—

Ontario	90
Quebec	4
New Brunswick	1
Nova Scotia	14
Prince Edward Island	13

Special Series in Western Peninsula.

Successful meetings were held last May and June in the Counties of Lambton, Kent and Elgin, at the following places:—

Forest,	Glencoe,
Arkona,	Mount Bridges,
Parkhill,	Fingal,
Ailsa Craig,	Dutton,
Ilderton,	Cedar Springs.

This is one of the most favoured parts of Canada as far as climate and soil are concerned. The fruit growing interests, however, are just beginning to revive. In the early history of the Western Peninsula, Kent and Elgin particularly were noted as apple growing counties, but with the depression of the '90's' and the introduction of the San José scale, apple orcharding and fruit growing generally ceased to flourish. Indeed, the most reliable statistics show a distinct decline in those counties.

The southern shore of Lake Huron, in the County of Lambton, was formerly a peach growing district of some importance. The original orchards, however,, have all disappeared as the result of the invasion of fungous diseases which the orchardists did not know how to combat. Lately there has been a revival, not only on the immediate lake shore, but further back in the County about Forest and Arkona and, to a lesser extent, at other points. The fungous diseases and insects that formerly discouraged the fruit grower, are now under complete control. The modern spray mixtures and modern spray pumps have placed the fruit growers in a commanding position, and the Leaf Curl and San Jose scale are not considered a serious menace to the industry. Even the dreaded Yellows and Little Peach are quite amenable to methods which, although they do not render them inocuous, enable the fruit grower to engage in the industry without serious loss from that source.

About the feasibility of planting upon the immediate lake shore, there is not the slightest doubt. The greatest menace to the tender fruits is the spring frosts, and these are controlled perfectly near the water. It is a question, however, how far inland this immunity extends, and it might be well to advise caution in planting tender fruits in large quantities in areas that have not been tested for several years, so that the effects of the spring frosts may be known. That is to say, all new plantations of tender fruit should be small, and the hardier fruits, such as apples and pears, should be recommended for the main planting. There is no doubt whatever about the feasibility of planting apples and pears. No part of Canada has greater advantages in soil and climate, and where land is so cheap it would appear that apple and pear growers would have a great initial advantage in the matter of interest charges. The soil, for the most part, is clay loam, running, however, in the County of Lambton on the north and in Elgin on the south, to rather light sandy loam.

The chief drawback is the comparatively small quantity of fruit grown by any one individual. Local markets and co-operative associations are also wanting. In many of the best districts, farmers complained that they could not get ready sale for the apples they had. Upon inquiry, it was found that the entire product of their orchards was, perhaps, a dozen or a score of barrels, and that there were not any more in the immediate neighbourhood or, if there were, they were in equally small quantities. This made it impossible to market the fruit except co-operatively, with any profit, and the

co-operative idea does not seem to have permeated the inland fruit growers. In consequence of this, it is needless to say that the orchards, for the most part, are poorly cared for, and few farmers count upon them as a regular source of profit.

ASSISTANCE AT SHORT COURSES.

The short courses of the agricultural colleges continue to be of special interest. The number in attendance and the time limit have increased from year to year, and the scope of the different subjects introduced is becoming correspondingly comprehensive.

During the year, Inspector Carey spent several days at the Ontario Agricultural College, Guelph, and at the Agricultural College, Truro, N.S., giving demonstrations in box packing to the Short Course students. Mr. Jas. Gibb, an expert packer from Kelowna, B.C., was also engaged to assist with the Short Course work at the Ontario Agricultural College and at Macdonald College.

I attended two sessions of the Short Course at Macdonald College, devoting an afternoon to box packing, and giving an evening address on the agricultural co-operative movement, with special reference to apple selling associations.

BETTER FARMING SPECIAL.

The Ontario Department of Agriculture equipped a 'Better Farming Special' train during the past winter. The Dairy Commissioner's Branch was asked to provide a fruit demonstrator among experts in other lines. Mr. Carey was selected and accompanied the train from February 26 till March 16, touching at the following points:—

St. Joachim,	Windsor,	Elmstead,
Tilbury,	Chatham,	Kent Bridge,
North Bothwell,	North Glencoe,	Caradoc,
Hyde Park,	Thamesford,	Woodstock,
Belmont,	Tillsonburg,	Ingersoll,
Drumbo,	Galt,	Milton,
Moffat,	Elmira,	Milverton,
Goderich,	Blyth,	McNaught,
Streetsville,	Brampton,	Cataract Jct.,
Orangeville,	Shelburne,	Dundalk,
Owen Sound,	Chatsworth,	Markdale,
Flesherton,	Bolton,	Woodbridge,
North Toronto,	Agincourt,	Claremont,
Myrtle,	Pontypool,	Peterboro,
Norwood,	Ivanhoe,	Tweed,
Sharbot Lake,	Perth,	Smith's Falls,
Carleton Place,	Merrickville,	Mountain,
Winchester,	Finch,	Apple Hill.
Macdonald College,	Windsor Station, Montreal	

This 'Better Farming Train' proved an attractive feature and drew large crowds at almost every point. In connection with the work, Inspector Carey writes:—

'I would pronounce the "Better Farming Special" a success. Of course, on account of the hurry and rush, it is difficult to deal with the wants of the growers in detail, but in the "Farming Special" there is enough to attract a certain class that perhaps would not pay much attention to the ordinary meeting. I feel satisfied that a great deal of good can be accomplished through this medium. The schools were dismissed in many cases, and I was impressed by the interest taken by the pupils in our

talks on plant life and insect pests. I would say that special attention should be paid to this phase of instructive work if the "Better Farming Special" is continued another year.'

FRUIT SUBJECTS AT DAIRY MEETINGS.

I attended the Dairy Convention in Hemmingford, January 29, and the District of Bedford Dairymen's Association Annual Meeting in Cowansville, February 2. Both these meetings proved exceedingly interesting. Although dairy subjects predominated on the programmes of the meetings, practically every one present had an orchard, large or small, upon his farm. The meetings furnished an excellent opportunity for drawing attention to the advisability of adopting side lines even in so well established a branch of farm industry as dairying. There is no doubt that the revenue of every dairy farm in these splendid districts could be very largely increased by the addition of a well kept orchard. The orchard would utilize some of the coarse manure at a season when it would be difficult to dispose of it anywhere else, and with the utmost advantage to the orchard. The amount of land withdrawn from forage crops would be so small that it might be regarded almost as a negligible quantity. The chances are that the dairyman who undertakes orchard work, will thereby become a better farmer to such an extent that he will grow more forage on less land.

Although a great many skilled dairymen were in attendance at Hemmingford and Cowansville, the majority of all such meetings are really men following mixed farming. It was, therefore, I think quite appropriate that a side line, so generally followed as orcharding, should receive some attention even at a meeting that is essentially special in its character. Full reports of these meetings have been published elsewhere.

THE FRUIT CROP REPORT.

The Fruit Crop Report was issued this year on the 15th of each month, beginning with May and ending with September. The demand for the report continues insistent. As the result of this year's work several improvements have been suggested in connection with the compiling of the report for 1912.

The value of the fruit crop report does not consist exclusively in the novelty of the information nor even in its timeliness. What the fruit growers demand more particularly is the absolute trustworthiness of the reports made with, of course, as much dispatch as can possibly be secured. The Fruit Crop Report is compiled from information furnished by some 3,000 correspondents, located in the fruit districts and, for the most part actually engaged in growing fruit. The information furnished embraces not only an estimate of the crop of each kind of fruit, but takes up all principal commercial varieties of each particular kind. This is a feature in fruit crop reporting that is seldom attempted in a systematic way, and therefore renders our report particularly valuable.

The information gathered from correspondents with reference to insects and fungous diseases is also of very great value. Being actively engaged in the business, our correspondents are in position to know the amount of injury done by any particular insect or fungus, and the reports received simultaneously from such wide areas enable the Fruit Division to report with considerable accuracy upon the extent of the ravages of any particular insect or fungous disease.

In addition to our Canadian report, information is gathered with reference to competing crops in foreign countries.

FRUIT CROP CONDITIONS, 1911.

The various issues of the Fruit Crop Report give a record of the fruit year from month to month. The season of 1911 was somewhat unique in respect to the fruit

crop generally. The weather for the first part of the season was particularly favourable. Although the spring was backward, it was not excessively so, and no serious damage was done by frost except to the peach and cherry crop in British Columbia. One remarkable feature in connection with the fruit crop was the short time fruit trees remained in bloom. The apple blossoms, for instance, usually cover a period of from ten to fifteen days, but this season the blossoms were scarcely open before the petals began to fall. It did not, however, result in any serious damage to the "set" of the fruit, which was fairly good, although perhaps the June "drop" was more pronounced than usual. This may be attributed to the weather conditions, which were much drier than usual. July and August weather can hardly be said to have been favourable. The lack of rain and the exceptionally warm weather had a perceptible effect particularly upon the small fruit crop.

Strawberries were not more than half a crop and other small fruits suffered proportionally, blackberries in some districts being almost a total failure. The effect of the drought and hot weather was also felt in the new plantations of strawberries, which did not recover during the season; and many correspondents predict that the acreage in 1912 will be seriously affected, particularly in Ontario.

Apples and pears suffered, but not so seriously as small fruits. It is significant that the condition of the crop was fairly well established during the month of August, and the estimates that were made upon the reports of the correspondents during this month were practically verified by the crop as picked.

The crop of apples in Prince Edward Island and New Brunswick had no noticeable features, but was a fair average and fairly clean.

Nova Scotia had a record crop. The final results show that a million and a half barrels of apples were placed upon the market, largely from District 6 comprising the Counties of Hants, Kings and Annapolis. This was at least three times the crop harvested last year, and under ordinary circumstances there might have been very great marketing difficulties. The fact that the whole crop was packed and shipped with little or no loss, can be attributed to a very marked extent to the effect of the Co-operative Associations.

The apple crop in Quebec was normal or perhaps a little below the average, but was fairly clean though undersized on account of dry weather.

In Ontario the crop was uneven. The early fruit in southern Ontario was a medium crop, and was not marketed in good condition. There is great room for improvement in the marketing of early fruit in southern Ontario. In the September Report the following note appeared:

'Winter fruit is showing maturity at least two weeks earlier than usual, and fears are expressed for the keeping qualities if the latter part of September and October continues relatively warm.'

September and October were warmer than usual and the winter varieties proved very poor keepers. Inexperienced dealers suffered heavy losses on fruit stored for winter markets. Indeed, this is a noticeable feature of the year everywhere, though of course the fruit from the northern district and from Nova Scotia stood up much better than that from southern Ontario.

The winter apples in western Ontario proved almost a failure, though it is noticeable that where the orchards were well cultivated, pruned and sprayed in former years, they responded in 1911 with a fairly good crop in almost every instance.

On the north shore of Lake Ontario and in the Georgian Bay district, the winter apples were exceptionally good. There was a large crop of Spies and a fairly good crop of Greening, Baldwin and Ben Davis. Other varieties were at least medium.

The 1911 crop of pears was fairly good per tree. It is noticeable, however, that the number of pear trees is decreasing rapidly. The demand in the home market for pears was excellent and, indeed, the home market absorbed the whole crop. It may

not be amiss here to remark that fruit growers in Ontario particularly are making a great mistake in allowing their pear orchards to decline. Nowhere in America are there better conditions of climate and soil for growing pears than in Ontario. The only drawback to the industry up to date has been Blight. A few years ago this appeared uncontrollable, and orchardists may have been justified in hesitating to plant at that time. Now, however, Blight is amenable to treatment, and the treatment is as efficient as in the case of most other plant diseases. It is not nearly so destructive to pears as the Yellows is to peaches, and the cost of protecting a pear orchard from Blight is not proportionally so great as protecting an apple orchard against Apple Scab. Yet pear growers have apparently become discouraged and, as a consequence, the pear industry is seriously on the decline. The fruit grower who begins at once to plant pears will find an eager market by the time his trees come into bearing.

The plum crop was not exceptionally heavy. Indeed, the market could scarcely be said to have been fully supplied.

The same may be said of peaches, although the crop in Ontario was a fairly good one. The peach industry of British Columbia received a serious check last year, and it is doubtful whether growers should plant heavily until further experience is gained with reference to winter killing and spring frosts in that province.

Grapes maintained their reputation for being constant and prolific croppers. The acreage of late years has increased largely but consumption has not increased proportionally; and though the quantity of grapes that could be grown in Ontario is almost unlimited, it would appear that better marketing facilities must be in sight before much extension of the business could be advised. Those who are in the best position to judge, are of the opinion, however, that if the crop were well distributed, by means of properly organized co-operative associations, the consumption of grapes in our present markets could be increased 50 per cent, perhaps even more.

Tomatoes proved a very short crop on account of the dry weather in the districts where they are grown. Many correspondents expressed great dissatisfaction with the prices paid by the canning factories. With a remunerative price, there is no reason why an unlimited quantity of tomatoes should not be grown in southern Ontario. They cannot be grown cheaper anywhere in America.

THE APPLE SEASON OF 1911-12.

The season of 1911-12, so far as the apple crop was concerned, was somewhat abnormal. A very light crop in British Columbia, a small crop in Prince Edward Island, New Brunswick and Quebec, and scarcely a medium crop in Ontario, was balanced by an extraordinary crop in Nova Scotia.

THE SEASON IN NOVA SCOTIA.

In fact, the feature of the year was the large crop of apples harvested in Nova Scotia. For several years prior to 1910-11, there had been a succession of good crops. The 1910-11 crop was abnormally small, but the crop of 1911-12 was so much above the average that it would not be sufficient explanation to say that it was the result of the 'rest' the trees had in 1910. As a matter of fact, orcharding has been making good progress in Nova Scotia for a number of years. Better methods have been introduced and practiced by a large number of orchardists and yields are correspondingly high. Off-years are becoming less frequent than formerly, and standard crops are more likely to be harvested regularly from year to year. Again, the success of Nova Scotian orchardists has induced many of them to increase their plantings considerably, and there have certainly been a large number of new plantings made by people who have decided to go into the business somewhat extensively.

The good culture, the increase in existing plantations and the establishment of many new plantations, have gone on so quietly that even the people of Nova Scotia were not prepared for the unusual conditions of this year. The season of 1911-12 was undoubtedly favourable in its weather conditions, but it must be taken into consideration, also, that many thousands of trees bore their first crop of fruit, and that good culture is becoming common.

In the natural course of things, it would be expected that, unless climatic conditions were particularly favourable, there would be a small crop for the season of 1912-13. Having in mind, however, the large number of young trees now coming into bearing each year and the fact that the orchards are so much better cared for than formerly, it is quite possible—and, indeed, quite likely—that with ordinary climatic conditions the apple crop of Nova Scotia for 1912-13 will equal that of any previous year, except 1911-12.

The following are extracts from the report of the Dominion Fruit Inspector G. H. Vroom, who has immediate charge of the work in Nova Scotia:—

'The season of 1911-12 has been a record one so far as the apple industry of Nova Scotia is concerned. Beginning with April, 1911, the weather conditions were ideal. The cool days of the first of April kept the buds from bursting too early, and as the warmer days came the last of the month and the early part of May, the trees began to show signs of life and, by the end of May, the whole country was a mass of apple blossoms. During the blossom season the weather was fine and warm giving the bees a chance to work among the flowers, which resulted in a 'heavy' set of fruit, which developed into a large crop.

'Spraying was more general and more thorough than ever before, lime and sulphur being generally used in the Annapolis Valley. Insect pests, therefore, made little headway in the apple orchards.

'The summer of 1911 was dry and this, together with quite thorough spraying, resulted in a very clean crop of fruit. Shipping began earlier than usual on account of the fruit maturing earlier owing to the hot dry weather.

'A large quantity of Nova Scotian friut found its way into the Western markets, and I am sorry to say some of it was not a credit to Nova Scotia. Favourable reports, however, were received from the larger portion of it. Germany also took a large quantity of Nova Scotian apples.

'The apple crop has been handled in a satisfactory manner. The twenty-two Co-operative Companies handled more than a quarter of the entire crop in a very satisfactory way. More Co-operative Associations are being formed, and the ushering in of the season of 1912-13 will probably see thirty or more such Associations in operation, all under the direction of the Central Association.

'So far as the inspection is concerned the season has been a busy one, and the staff of inspectors at Halifax have worked up to the limit, very frequently all night; in fact, the shipping has been carried on night and day since last October.

'The grading and packing has been fairly well done, but there is yet room for a great improvement in the handling of the fruit from the trees to the packed barrel. Apples are handled with too much haste or I might say carelessness, which bruises and injures them materially. One other defect is the over-pressing, which bruises half the contents of the barrel.

'The barrels themselves have not been what they should have been, particularly in the Western part of the fruit district. Rough inferior stock has been used and, in many cases, both ends were rough, thus giving the packages an unsightly appearance. Quite a large percentage of the barrels have been under size in addition to being roughly made. Many fruit growers are not careful to keep their packages clean. When an apple barrel is left out in the rain, rolled through mud and muck after it

has been filled, it is in bad condition when it arrives in the market, and suffers a consequent cut in price of from one to two shillings simply on account of its appearance.

'The thermograph records show that the ventilation of the ships has been well looked after by those who had the matter in charge.

'Twenty-three prosecutions have been recorded for violation of the Inspection and Sale Act, Part IX, in Nova Scotia during the past season.

'There were 1,404,344 barrels of apples exported from Nova Scotia; the shipments to the Western market amounted to 176,150 barrels, and it is estimated that the local markets absorbed 150,000 barrels, making a total of 1,730,494 barrels of Nova Scotian apples marketed.'

(Further particulars with reference to the apples exported will be found in the Report of the Chief of the Markets Division.)

NOVA SCOTIAN APPLES IN GERMANY.

It will be noted that 117,933 barrels of apples and 547 boxes were exported from Nova Scotia to Germany. Although Canadian apples, principally from Ontario, have found their way to German markets in comparatively small numbers in former years, this is practically a new departure for Nova Scotian shippers. In this connection it may not be out of place to quote a paragraph from the report of the Canadian Acting Trade Commissioner in Hamburg. Writing to the Department of Trade and Commerce he says:—

'There have been more apples imported from Canada during the past season than ever before, mostly from Nova Scotia. Your commissioner saw some 3,000 barrels landing at the fruit warehouse in Hamburg, and had a number of barrels opened for his inspection. They were not in first-class condition, nor was this to be wondered at as they were shipped from Halifax to London, thence to Hamburg, there discharged into lighters and warehoused. Large shipments are disposed of at auction in the same manner as at Liverpool and Glasgow, except that the samples are not shown in the auction rooms; the fruit is shown at the warehouse at the docks in the morning, and the auctions take place in the afternoon. The large dealers from Berlin and other cities go to Hamburg and attend the sales, which are held twice or three times a week. Catalogues are prepared and distributed among the buyers. There is an open square in Hamburg which accommodates about 500 vendors, and fruits of all kinds are disposed of to housekeepers and small pedlars.'

PRICES OF APPLES.

One outstanding feature of the apple season, brought to our notice promptly by the fruit crop correspondents, was the high price with which the season commenced in Ontario. The crop was undoubtedly under-estimated by these buyers who offered $2.50 to $3.00 for No. 1 fruit. Of course, large quantities of apples were bought much cheaper than this, but high prices were the rule. The result was that apples were somewhat slow going into consumption. Prices lowered in November and December, and there was a decided slump through January and part of February. The market recovered, however, and first class stock sold well to the end of March.

As a consequence of the somewhat lower prices than were expected by the buyers and of the poor keeping qualities of the apples, many dealers lost heavily. With the improved transportation and storing facilities, it would seem that there is little excuse for speculating in apples. The transportation and storing facilities make it possible to place apples upon the market when the market demands them, and growers therefore need not fear to hold fruit until it is in season. This would do away with much of the speculative element, and the grower could depend upon the price that the market afforded. This market price, even late in the season, is seldom lower than the price

which the buyer will give the grower earlier in the season. Of course, some markets, such as the Northwest, must buy ahead as shipments are impossible during the very cold months. No one can hold apples so cheaply and so well as the growers, especially where they are united in co-operative associations; and the apple industry would lose one of its very objectionable features if speculative buying could be eliminated.

THE NORTHWEST MARKET.

The Northwest market continues to develop with great rapidity. It is extremely difficult to procure accurate statistics as to the exact amount of fruit consumed, nor is this at all necessary to enable us to form an opinion, in a general way, as to the capacity of this market. One outstanding feature of the present season we find in the fact that many large dealers, who depended formerly almost entirely upon the British market, turned their attention this year exclusively to the Northwest, and found a ready sale for their holdings.

This year, too, has demonstrated that Nova Scotia is a distinct factor in the Northwest market. The crop of Nova Scotia Gravensteins was particularly large, and many thousands of barrels found their way as far west as the Pacific coast at fairly remunerative prices. The fact that Nova Scotia is extending her orchard area very rapidly, makes this a feature well worth noting in a review of the fruit year. The Nova Scotia shippers realized a net price of from $1.50 to $2.00 per barrel, f.o.b., and it is well known that they would continue to produce even if prices were reduced considerably below these figures. Ontario, therefore, and British Columbia, will find that the advent of Nova Scotia into the Northwest market, introduces a new competitor that may materially change the conditions of that market.

APPLE ORCHARD COMPANIES.

A notable event of the year in connection with the apple industry has been the establishment of several orchard companies. These companies are quite distinct from real estate companies that clear and plant land to be afterwards sold in smaller blocks. The orchard companies in question have, for the most part, confined themselves to renting farm orchards, usually small, mature—indeed, some of them quite old—and all of them more or less neglected. The companies vary in their contracts, but in the main they undertake to renovate the orchard by pruning and spraying, and make arrangements with the owner for the cultivation and team work generally. A rental of $15 per acre is usually paid, varying with the locality and the condition of the orchard.

Some of the companies secured a large number of trees and undoubtedly had great difficulty in so organizing their staff as to perform the necessary cultural operations in time. Others, with smaller holdings, succeeded in carrying on operations successfully, and in most cases made a fair dividend at the end of the season. A comparison of the cost of the various operations performed by these companies and the cost when performed by the owner, would show most conclusively that the owner in every case can perform the various operations much cheaper than the company. This, of course, is to be expected. There are, also, many small savings that accrue to the owner that do not come to the renting companies. Nevertheless, the companies are performing a service to the fruit industry inasmuch as they are showing that, even under the greater expense to which they are put, there is still a good profit in growing apples. The effect of these companies is quite noticeable in the larger yields, especially of the higher grades of fruit. No statistics are available to show the exact quantity of fruit handled by these companies, but well informed correspondents estimate that they handled between 100,000 and 150,000 barrels of apples in Ontario alone.

CO-OPERATIVE ASSOCIATIONS.

For the last ten years, co-operative fruit selling associations have been organized in Ontario. The success of these associations has been beyond question since their first organization. Nevertheless, their growth and influence upon the apple industry had been comparatively slight until the seasons of 1909, 1910 and 1911. There were several reasons for this, chief of which was the lack of co-operative sentiment among fruit growers and farmers generally. The individualistic idea and mode of working had become so ingrained, that any thought of working in groups was received with suspicion. In any particular farming neighbourhood in Ontario, members of the community are of many nationalities and religions. The effect of this is to prevent a feeling of confidence without which there can be no real co-operation. This difference of nationalities and social instincts, so noticeable in farming communities, is an undoubted evil that stands seriously in the way of progress. There is no cure for it, except through the slow process of education. Any movement that will cause the people to work together for any purpose, no matter how trivial, will have its effect in helping to make the individual members of the community better acquainted with each other and will help to show that though there may be differences upon many points, the people generally are inclined to be fairly honest and public-spirited and anxious for the betterment of the community. Once this sentiment has gained a certain foothold, it will be possible to secure co-operative associations.

Another serious obstacle, opposing the formation of co-operative associations, has been the efforts of a certain class of apple dealers, who have been making a living by standing between the fruit grower and the regular fruit merchants in the various markets. The effect of co-operation is undoubtedly to cut out these useless middlemen. These middlemen, however, do not relinquish their hold upon the trade without making a vigourous opposition, and in some cases they have succeeded in delaying the formation of co-operative associations, and in a few cases have disrupted them after they were formed. This particular opposition was strongly felt in Nova Scotia and, consequently the first co-operative associations there were formed and maintained under very great difficulties; and, had it not been for the public-spirited conduct of several pioneer co-operators in Nova Scotia, it is doubtful whether the local apple operators might not have permanently maintained their position. They had a strong hold upon the transportation and storage facilities, and their profits were large, so that the business was well worth fighting for. However, after a certain number of local associations had been formed, a central association was organized that proved altogether more than a match for all the opposing forces, and during 1910 and 1911 about twenty-three local societies were organized in this province.

The number of apple selling associations in Ontario and British Columbia has not increased to the same extent as in Nova Scotia. The situation, however, is hopeful in British Columbia inasmuch as the western fruit growers are inclined to work under co-operative methods, and there is reason for believing that just as fast as orchards develop, co-operative selling associations will be formed.

The following is a list of the co-operative apple selling associations in operation in Canada. This is, perhaps, the most complete list published; nevertheless, it cannot be regarded as including all the associations. It is quite probable that many efficient associations are omitted.

British Columbia—

Creston Fruit & Produce Co.	Creston.
Grand Forks Fruit Growers' Association	Grand Forks.
Hammond Fruit Growers' Association, Ltd.	Hammond.
Hatzic Fruit Growers' Association	Hatzic.
Kelowna Farmers' Exchange	Kelowna.

British Columbia—Continued.

Kootenay Fruit Growers' Union	Nelson.
Mission District Fruit Growers' Association	Mission.
Okanagan Fruit Union, Ltd.	Vernon.
Salmon Arm Farmers' Exchange	Salmon Arm.
Victoria Fruit Growers' Association	Victoria

Ontario—

Arkona Fruit Growers' Association.	Arkona.
Alvinston Fruit Growers' Association	Aughrim.
Arkwright Fruit Growers' Association	Burgoyne.
Brant Packing Association	Burford.
Brant Fruit Growers' Association	Burford.
Burgessville Fruit Growers' Association	Burgessville.
Burlington Fruit Growers' Association	Burlington.
Canadian Apple Exporters Ltd.	Frankford.
Chatham Fruit Growers' Association	Chatham.
Clarkson Fruit Growers' Association	Clarkson
Cobourg Fruit Growers' Association	Baltimore.
Co-operative Fruit Growers of Ontario, Ltd.	Toronto.
Durham Fruit Growers' Association	Bowmanville.
Dunnville Fruit Growers' Association	Dunnville.
Forest Fruit Growers' Association and Forwarding Co.	Forest.
Georgetown Co-operative Association	Georgetown.
Georgian Bay Fruit Growers, Ltd.	Thornbury.
Gore Fruit Growers' Association	New Durham.
Grafton Fruit Growers' Association	Wicklow.
Grimsby Fruit Growers' Association	Grimsby.
Hatchley Station Fruit Growers' Association	Hatchley Station.
Huron Fruit Growers' Association	Goderich.
Ilderton Fruit Growers' Association	Ivan.
Jordan Co-operative Association	Jordan.
Milton Fruit Growers' Association	Milton.
Mount Nemo Fruit Growers' Association	Nelson.
Newcastle Fruit Growers' Association	Newcastle.
Norfolk Fruit Growers' Association	Simcoe.
Northumberland Co-operative Fruit Growers' Association	Brighton.
Ontario & Western Co-operative Fruit Growers' Assoc'n	Grimsby.
Orono Fruit Growers' Association	Orono.
Oshawa Fruit Growers' Association	Oshawa.
Owen Sound Fruit Growers' Association	Owen Sound.
Oxford Fruit Growers' Association	Oxford Centre
Paisley Fruit Growers' Association	Paisley.
Pelham Fruit Growers' Association	Fonthill.
Port Burwell Fruit Growers' Association	Vienna.
Prince Edward Fruit Growers' Association	Wellington.
Simcoe Fruits Ltd.	Barrie.
Sparta Fruit Growers' Association	Sparta.
St. Catharines Cold Storage and Forwarding Association	St. Catharines.
Tillsonburg Fruit Growers' Association	Tillsonburg.
Watford Fruit Growers' Association	Watford.
Wentworth Fruit Growers' Association	Hamilton.
Winona Fruit Growers' Association	Winona.
Wyoming Fruit Growers' Association	Wyoming.

Quebec—

The Abbotsford Co-operative Fruit Growers' Society .....Abbotsford.
The Havelock Fruit Growers' Co-operative Society.....Covey Hill.
The Rougemont Fruit Growers' Co-operative Society.....Rougemont
La. Société Co-operative des Fruitiers de St. Hilaire.... St. Hilaire.
La Société Co-operative des Fruitiers de St. Joseph du Lac. . St. Joseph du Lac.
Union Experimental des Agriculteurs de Quebec.

Nova Scotia—

Aylesford Fruit and Produce Shipping Company.....Aylesford.
Bear River Fruit Co.....Bear River.
Berwick Fruit Co., Ltd.....Berwick.
Bridgetown Fruit Co.....Bridgetown.
Canard Fruit Co.....Hillaton.
Central Fruit Co.....Clarence.
Cornwallis Fruit Co.....Waterville.
Enterprise Fruit Co.....Clarence.
Granville Fruit Co.....Upper Granville.
Kingston Fruit Company.....Kingston.
Kingsport Fruit Company.....Kingsport.
Lawrencetown Fruit Company.....Lawrencetown.
Maple Leaf Fruit Company, Ltd.....Canning.
Mayflower Fruit Packing Company.....Kingsport.
Middleton Fruit Company, Ltd.....Middleton.
Paradise Fruit Company, Ltd.....Paradise.
Port Williams Fruit Company.....Port Williams.
Round Hill Fruit Company.....Round Hill.
Sheffield Mills Fruit Company.....Sheffield Mills.
South Farmington Fruit Company.....South Farmington.
Union Fruit and Produce Company.....Williamston.
United Fruit Companies.....Berwick.
Waterville Fruit Company.....Waterville.

Prince Edward Island—

The Co-Operative Fruit Company.....Charlottetown.

SOME FACTS IN CONNECTION WITH ONTARIO CO-OPERATIVE ASSOCIATIONS.

It is scarcely possible to get accurate statistics and other information with reference to the working of co-operative associations at the present stage of growth. Thirty-four associations in Ontario supply interesting details upon a number of points. Twenty-one of these are incorporated under Ontario Statutes, and thirteen of them are not incorporated. In the matter of capital these figures are just reversed. Twenty-one have practically no capital, and thirteen have more or less, the largest capital being $30,000. About one-third of the associations do not distribute orchard supplies at cost; about half have no equipment of any sort; twelve have good packing houses, well equipped; and two have modern mechanical cold storage plants.

Many of the associations are not yet on a permanent basis. The need for any large amount of capital is not especially urgent. Nevertheless, even in the smallest association there should be equipment that would call for some investment. A central warehouse is almost a necessity in any association that is at all likely to be permanent. The idea is rapidly gaining ground that no grower should grade his own apples for sale. The man who owns the apples sees a blemish with altogether different

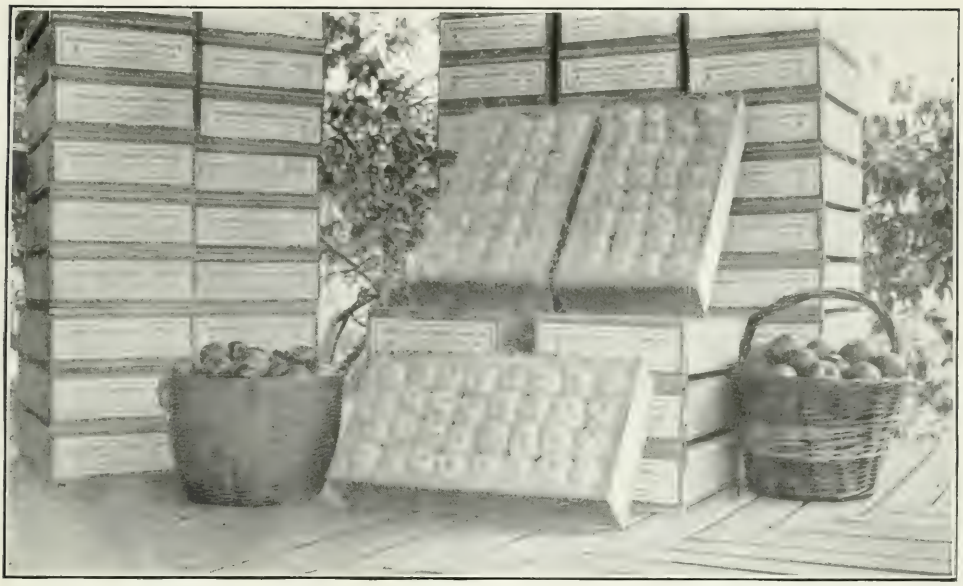

FIG. 1.

FIG. 2.

1. Showing style of Packing Fameuse Apples for Festival of Empire Exhibition, London.
2. Showing Method of "Crating" 3 single layer fruit cases.

eyes from the man who consumes them and, as human nature cannot be eliminated entirely, the better way is for the fruit growers to form co-operative associations, have a central packing house, and place the grading and packing of their apples in the hands of disinterested professional packers. This work can be done satisfactorily only in a central packing house, and the fact that there are so few in Ontario, shows a grave weakness in the co-operative movement in this province.

CO-OPERATIVE ASSOCIATIONS AS DISTRIBUTORS.

Another evidence of the somewhat temporary organization of the Ontario associations is the fact that so many of them fail to use the association as a medium for distributing orchard supplies. The St. Catharines Cold Storage and Forwarding Association has made a great success of distributing orchard supplies to its patrons, and has very kindly offered its services in this connection to many of the smaller associations. In this way cheaper supplies have been furnished to about one-third of the Ontario associations, which has contributed not a little to the very marked improvement in spraying. Fruit growers who would never have thought of spraying, have taken it up from the mere fact that they could conveniently and cheaply secure the apparatus and spraying material. It is to be regretted that every association does not make provision for acting as a distributing agent in orchard supplies.

It is interesting to find that twenty-one of the associations are incorporated. An unincorporated asssociation is liable to disband at any time. If there is no incorporation, no investment in equipment and no working capital, any temporarily discouraging feature serves as an excuse to disrupt the association. It cannot be urged too strongly, therefore, upon all the associations that they should at once secure a charter. The procedure in Ontario for this purpose can be learned by applying to the Provincial Secretary, Toronto.

CO-OPERATIVE LEGISLATION.

Perhaps the fact that so large a number of co-operative associations are unincorporated may be attributed in part at least to the want of proper co-operative legislation in Ontario or, for that matter, in the Dominion, and those who have the movement most at heart feel that there is a pressing need for co-operative legislation.

But even those who are most interested in co-operative legislation are not quite unanimous as to what would constitute the chief feature of such legislation. Three points, however, stand out clear and distinct. All truly co-operative legislation must provide for the management of the association by the whole membership, and not simply by the members who supply capital. This would mean, 'One man, one vote,' no voting by shares and no proxies. The second feature would be the payment of capital by a fixed and definite percentage. There is no reason why the remuneration for capital should not be fixed definitely and, if necessary, before the capital is engaged. We have no difficulty in fixing the wages of men at the time when they are engaged; there should be the same facility for fixing and limiting the remuneration for capital. A third feature should be a provision whereby the surplus profits that accrue, which it is not deemed expedient to use as a reserve fund, should be returned to the members in proportion to the use they have made of the association.

It will be seen that the object of such legislation is to prevent capital and dividends from dominating the policy of the company. In share companies it has been almost the universal experience that the management soon falls into the hands of a few who supply capital. Co-operative associations are not formed for the purpose of using capital. Capital is only incidental. The main object of the incorporation is to improve the industry. Hence the necessity for some provision in co-operative legislation that will effectually prevent capital from having any power to secure a controlling influence in the management of the affairs of the association. It is true, however, that

occasionally a joint stock company is managed on co-operative principles, but it is the exception. The difference is not merely a theoretical one. It is quite possible, for instance, to conceive of an apple selling association which, if managed for dividends, would be managed to the detriment of the main part of the membership, and the rewards would go largely to a few who happened to have money invested in the concern.

In several Ontario associations, now defunct, this dividend, earning spirit contributed largely to the breaking up of the association. A few men only incidentally interested in the industry, contributed a large part of the capital, which was innocently accepted by the association. As soon as the association became worth while, the membership found that the chief benefits were converted into cash and distributed as dividens on stock. As a result, many large shippers benefited little by the association and, consequently, withdrew and with them went the possibilities of making a dividend.

In nine cases out of ten what an apple shipping association is searching for is not an organization to secure dividends on stock, but an organization that will benefit the industry. This cannot be secured in our ordinary joint stock organization. It is very remarkable, indeed, how the joint stock idea has become ingrained in the minds of Canadian people so that they consider it perfectly legitimate and right that the benefits of any undertaking should be distributed with reference to capital alone. Such sentiment must be entirely eradicated before the apple selling associations can be placed upon a proper basis.

THIRD DOMINION CONFERENCE OF FRUIT GROWERS.

The third Dominion conference of fruit growers was held in Ottawa, February 14, 15 and 16. The delegates represented every part of Canada and their recommendations, therefore, may be taken as representing very fairly the wishes and needs of Canadian fruit growers. Some of the resolutions passed by the conference recommended modifications of the Inspection and Sale Act; but further reference to the proceedings is unnecesary here as a full report is being prepared for general distribution.

A. McNEILL,
Chief, Fruit Division.

APPENDIX IV.

REPORT OF EXPERIMENTS IN CARE AND HANDLING OF CREAM FOR BUTTERMAKING.

By Geo. H. Barr, *Chief, Dairy Division.*

I hereby submit a report of the experiments carried on at the Renfrew Creamery, Renfrew, Ont., in 1911.

The experiments conducted in 1910 in caring for the cream at two farms near Renfrew (a partial report of which was submitted last year) showing clearly, that cream which was cooled immediately after skimming and kept sweet until delivered at the creamery, and then allowed to ripen without pasteurization or the use of a 'starter' produced in nearly every case a poor *keeping quality of* butter. The flavour

was, in most cases, very fine when the butter was fresh, but in three weeks or a month, it had become stale or had an old cream flavour. It seemed quite clear that to get the best results from gathered cream, it must be cooled and kept sweet at the farms and delivered to the creamery in that condition, but in order to secure a good keeping quality in the butter, it would be necessary to adopt some method of handling the cream at the creamery in place of allowing it to ripen naturally.

Further experiments were therefore conducted in 1911 on *different methods of treating the cream after it was received at the creamery.*

All the cream received at the Renfrew Creamery is delivered in individual cans, a good deal of it coming in by train. This enabled us to select almost any kind of cream that we wished to experiment with.

The experiments consisted of 42 churnings in a small-sized combined Simplex churn.

A short explanation of the methods of treating the cream, and of the terms used, will make the following tables more easily understood. As the cream was being delivered by the patrons, the necessary selections were made and put into one of the creamery vats. After being thoroughly mixed it was drawn off into ten gallon cream cans, each experimental lot containing 160 pounds of cream. Pasteurizing, cooling and ripening was done in these cans in a wooden tank in the creamery.

The term 'raw cream' refers to the cream that was not pasteurized.

'Natural ripening' means that the cream was allowed to ripen or develop acidity without the addition of starter.

'Pasteurizing.' In every case, the pasteurizing temperature was 150 degrees. This temperature was maintained for 20 minutes and then the cream was cooled to the ripening temperature as quickly as possible with ice and water.

In nearly every experiment, the cream was cooled to the churning temperature between 6 and 8 o'clock in the evening.

The 'starter' used in all the experiments was made of skimmilk powder prepared by adding one pound of the powder to one gallon of pure water. Ten per cent of this starter was used in every case.

In ripening and churning, we tried to adjust the temperatures and other conditions to suit the different lots of cream, so that the very best results would be obtained in every case.

The butter was scored by the writer and Mr. J. G. Bouchard when it was about two weeks old, at which time it was removed from the creamery cold storage and shipped to the Ottawa Cold Stores where it was held at a temperature of 10 degrees. The temperature in the creamery cold storage was 38 to 40 degrees. The butter was scored again by the same judges on July 14 and September 21. On October 20, the butter was shipped to London, Ont, and there scored by Messrs I. W. Steinhoff and J. B. Muir, both well known as buyers of butter and cheese and expert judges, and also by F. Dean and D. McMillan, Creamery Instructors in western Ontario. The score given in the tables under November 1 is the average score of these four experts.

Experiments B, C and D are practically the same, sweet clean flavoured cream being selected, one half of which was kept twenty-four hours longer than the other before churning.

Experiment B.

On May 31, 1,280 pounds of cream were selected and after being thoroughly mixed in a cream vat, churnings 1, 2, 3 and 4 were drawn off and treated as shown in Table I.

The remainder of the cream was left in the cream vat at 52 degrees until the following day, June 1, when it was divided for churnings 5, 6, 7 and 8, as in Table II.

Table I.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity at Churning.	Score on Flavour of Butter.			
				Two Weeks Old.	July 14.	Nov. 1.	Average of Scores.
			%				
1	Raw	Natural	·59	42·50	41·00	39·33	40·94
2	"	Starter	·62	42·50	42·00	39·50	41·33
3	Pasteurized	Natural	·39	43·50	41·75	39·83	41·69
4	"	Starter	·55	43·00	43·00	40·66	42·22

The cream contained 27·5 per cent of butter fat. The temperature of the cream when received was 66 degrees. The acidity of the cream when received was ·37 per cent, and it had a clean flavour. It was churned on June 1.

Table II.—Remainder of the Cream received May 31. Acidity at noon June 1, ·53 per cent. Churned June 2.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity at Churning.	Score on Flavour of Butter.			
				Two Weeks Old.	July 14.	Nov. 1.	Average of Scores.
			%				
5	Raw	Natural	·56	42·50	42·00	40·16	41·55
6	"	Starter	·60	42·50	42·50	39·66	41·55
7	Pasteurized	Natural	·52	43·50	43·00	39·83	42·11
8	"	Starter	·60	43·50	42·50	40·16	42·05

Experiment C.

On June 7, 1,280 pounds of cream were selected and churnings 1, 2, 3 and 4 as in Table III were drawn off. The remainder was left in the cream vat at 51 degrees until the following day, June 8, and then divided into churnings 5, 6, 7 and 8 as in Table IV.

Table III.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity at Churning.	Score on Flavour of Butter.			
				Two Weeks Old.	July 14.	Nov. 1.	Average of Scores.
			%				
1	Raw	Natural	·51	42·50	41·00	38·66	40·72
2	"	Starter	·55	43·00	43·00	40·16	42·05
3	Pasteurized	Natural	·32	43·00	43·00	40·16	42·05
4	"	Starter	·44	43·00	43·00	40·00	42·00

The cream contained 27·5 per cent of butter fat. The temperature of the cream when received was 62 degrees. The acidity of the cream when received was ·29 per cent, with a slight grassy flavour. It was churned on June 8.

Table IV.—Remainder of the Cream received June 7. Acidity at noon June 8, ·52 per cent. Churned June 9.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity of Churning.	Score on Flavour of Butter.			
				Two Weeks Old.	July 14.	Nov. 1.	Average of Scores.
			%				
5	Raw.....	Natural	·60	41·50	41·50	39·00	40·66
6	"	Starter.....	·62	42·25	42·50	39·00	41·25
7	Pasteurized	Natural	·52	42·75	42·75	40·50	42·00
8	"	Starter.....	·57	43·00	42·75	39·83	41·86

Experiment D.

On June 14, 1,280 pounds of the sweetest and best flavoured cream delivered by the patrons were selected. After being thoroughly mixed in the cream vat, churnings 1, 2, 3 and 4 as in table V were drawn off. The remainder was left in the cream vat at a temperature of 64 until the following day, June 15, when it was divided into churnings 5, 6, 7 and 8, as in Table VI.

Table V.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity at Churning.	Score on Flavour of Butter.			
				Two Weeks Old.	Sept. 21.	Nov. 1.	Average of Scores.
			%				
1	Raw.....	Natural	·50	42·00	41·00	33·16	40·72
2	"	Starter.....	·61	42·50	42·00	39·66	41·38
3	Pasteurized	Natural	·27	43·00	42·50	40·16	41·88
4	"	Starter.....	·57	43·00	42·00	39·66	41·55

The cream contained 26 per cent of butter fat. The temperature of the cream when received was 62 degrees. The acidity of the cream when received was ·25 per cent, with a sweet and clean flavour. It was churned June 15.

Table VI.—Remainder of Cream delivered June 14. Acidity at noon June 15, ·60 per cent. Churned June 16.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity. at Churning.	Score on Flavour of Butter.			
				Two Weeks Old.	Sept. 21.	Nov. 1.	Average of Scores.
			%				
5.....	Raw	Natural	·64	41·50	40·00	37·66	39·72
6.....	"	Starter.....	·67	42·25	40·00	38·86	40·37
7.....	Pasteurized	Natural	·59	42·50	42·00	39·00	41·13
8.....	"	Starter.....	·61	42·75	41·50	40·16	41·47

In these three experiments the butter from *raw cream without starter* was scored; (*a*) lower than any other 13 times, (*b*) equal with that from raw cream and starter 4 times and (*c*) equal with that from pasteurized cream and starter, once.

The butter from *raw cream starter* was scored: (*a*) higher than that from the r cream 14 times, equal 4 times, (*b*) higher than that from pasteurized cream without starter, once and (*c*) higher than that from pasteurized cream and starter, once.

The butter from *pasteurized cream without starter* was scored: (*a*) higher than that from raw cream 17 times and equal once, (*b*) higher than that from raw cream with starter 14 times and equal 3 times, (*c*) higher than that from pasteurized cream with starter 7 times and equal 5 times, and (*d*) lower than that from pasteurized cream with starter, 6 times.

The butter from *pasteurized cream with starter* was scored; (*a*) higher than that from raw cream 17 times and equal once, (*b*) higher than that from raw cream with starter 12 times and equal 5 times, (*c*) lower than that from raw cream once, (*d*) higher than that from pasteurized cream without starter 6 times and equal 5 times and (*e*) lower than that from pasteurized cream without starter 5 times.

TABLE VII.—Showing the Average Acidity and Scores of the Butter in Experiments B, C and D.

Churnings.	Average Acidity in Cream when Received.	Average Scores for Flavour.			
		Raw Cream without Starter.	Raw Cream with Starter.	Pasteurized Cream without Starter.	Pasteurized Cream with Starter.
	%				
1, 2, 3, 4	·30	40·79	41·58	41·87	41·92
5, 6, 7, 8	·55	40·64	41·05	41·75	41·79

These experiments B, C and D, show that when the cream is fairly sweet, and clean in flavour, there is not a very great difference in the flavour of the butter from raw cream ripened with a starter, as compared with the churnings that were pasteurized. These three churnings, however, score considerably higher than the churnings from raw cream without a starter. There is little difference between the churnings with a low acidity in the cream and those with a high acidity, or the same cream kept 24 hours longer.

The total average score for flavour was 41·54 points for the sweet cream churnings, and 41·30 for the sour cream churnings.

In experiments A, E and H, the worst cream we could find was selected from the general delivery at the creamery. The quality of the cream at the Renfrew Creamery is better than at many cream gathering creameries and, for that reason, we were perhaps not able to get as poor a quality of cream to experiment with as some butter-makers are obliged to handle. Some of it was, however, as bad as anyone would care to take in.

Experiment A.

On May 17, 640 pounds of cream were put in one of the creamery vats and after being thoroughly mixed, churnings 1, 2, 3 and 4 were drawn off and treated as shown in the following table.

Table VIII.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity at Churning.	Score on Flavour of Butter.			
				Two Weeks Old.	July 14.	Nov. 1.	Average of Scores.
			%				
1	Raw	Natural	·57	42·50	42·00	36·33	40·17
2	"	Starter	·63	42·50	42·50	38·00	41·00
3	Pasteurized	Natural	·48	42·75	42·75	38·66	41·38
4	"	Starter	·58	43·00	43·00	38·66	41 55

The cream contained 28 per cent of butter fat. The temperature of the cream when received was 57 degrees. The acidity of the cream when received was ·5 per cent and the flavour was not quite clean, one can having a cellar flavour. The cream was churned on May 18.

These figures in Table VIII show that butter made from the raw cream without a starter had gone very badly off in flavour by November 1.

Experiment E.

On June 19, 640 pounds of the worst flavoured cream delivered by the patrons were selected and divided into churnings 1, 2, 3 and 4 as in the following table.

Table IX.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity at Churning.	Score on Flavour of Butter.			
				July 12.	Sept. 21.	Nov. 1.	Average of Scores.
			%				
1	Raw	Natural	·62	39·00	38·00	36·50	37·83
2	"	Starter	·64	41·50	39·00	37·66	39·38
3	Pasteurized	Natural	·54	41·50	41·00	39·50	40·66
4	"	Starter	·58	42·50	41·00	40·00	41·16

The cream contained 30 per cent of butter fat. The temperature of the cream when received was 70 degrees. The acidity of the cream when received was ·56 per cent and the flavour was sour and not clean. It was churned on June 20.

The results in Experiment E show a decided advantage in pasteurizing, and especially in pasteurizing and using a starter.

EXPERIMENT H.

On July 12, 640 pounds of the worst cream delivered by the patrons were again selected and divided into churnings 1, 2, 3 and 4 in the following table.

TABLE X.

No. of Churning.	Kind of Cream.	Method of Ripening.	Acidity at Churning.	Score on Flavour of Butter.			
				July 24.	Sept. 21.	Nov. 1.	Average of Scores.
			%				
1	Raw	Natural	·65	40·00	39·00	55·50	38·16
2	Raw	Starter	·66	41·00	39·50	36·66	39·05
3	Pasteurized	Natural	·57	42·00	40·00	38·50	40·16
4	Pasteurized	Starter	·66	42·00	41·00	38·83	40·61

The cream contained 26·5 per cent butter fat. The temperature of the cream when received was 74 degrees. The acidity of the cream when received was ·57 per cent, and the flavour was badly tainted and sour. It was churned on July 13.

Table XI.—Showing the Average Acidity and the Average Scores of the Butter in Experiments A, E and H.

Average per Cent Acidity in Cream when Received.	Average Scores for Flavour.			
	Raw Cream without Starter.	Raw Cream with Starter.	Pasteurized Cream without Starter.	Pasteurized Cream with Starter.
·54	38·75	39·81	40·73	41·10

EXPERIMENT F.

Keeping Cream in a Refrigerator compared with Keeping it in Water and Ice.

A first-class house refrigerator was placed in the creamery and the cream from one farm was brought in as soon as it was separated night and morning for three days and divided equally into two lots. One half was set in the refrigerator and the other placed in water and ice in a wooden tank in the creamery.

The following table shows the average temperature and acidity of the cream for two different periods.

TABLE XII.

Cream Kept in.	Average Temperature.	Average Acidity.	Ice Used.
	Degrees.	%	Lbs.
Refrigerator	53·9	·415	221
Ice and Water	54·8	·230	178

There were 43 pounds more ice used in the refrigerator than in the tank with cold water. The average temperature of the cream in the refrigerator was the lowest by nearly 1 degree, yet the acidity was almost twice as high as in the cream held in the tank with ice water.

The difference is, no doubt, due to the fact that the water being a better cooling medium than air, reduced the temperature of the cream much more quickly.

The covers were kept on the cream cans in both cases and there was practically no difference in the flavour of the cream at any time. No starter was used in this experiment.

The flavour of the butter made from one of the lots was as follows:—

TABLE XIII.

Cream kept in	Acidity at Churning	Score on Flavour of Butter.			
		July 12.	Sept. 21.	Nov. 1.	Average of Scores.
	%				
Refrigerator	·55	42·50	41·00	36·16	39·33
Ice and water	·44	42·50	42·50	37·33	40.77

CONCLUSIONS.

An ordinary cellar is not a good place in which to keep cream.

Cream must be cooled to 55 degrees and held at that temperature to be delivered to the creamery every other day in a sweet condition. Setting the cream cans in water, or in water and ice, is the best method of cooling.

Cream delivered only twice a week must be cooled immediately after skimming to 48 or 49 degrees and held at that temperature.

A refrigerator is not as good a place in which to cool cream as a tank with water and ice.

The natural ripening of gathered cream at the creamery will not produce butter with good keeping qualities.

The use of ten per cent of clean flavoured starter improves the flavour and keeping quality of the butter.

Butter made from pasteurized cream without a starter has better flavour and better keeping quality than butter made from raw cream to which a good starter has been added, especially when the cream is tainted.

Pasteurized cream with 10 per cent of a starter added gave the best flavoured and best keeping butter.

Cleanliness and low temperature are the two most important essentials in the production of fine flavoured butter with good keeping quality.

GEO H. BARR,
Chief, Dairy Division.

APPENDIX V.

COW TESTING ASSOCIATIONS AND DAIRY RECORD CENTRES.

By C. F. Whitley.

GENERAL.

In 1911 the work of the cow testing associations was continued on the same general plan followed in previous years and as outlined in bulletin No. 12 of this branch. Records were received from 1,255 members with a total of 12,442 cows. Milk record forms were in brisk demand all over the Dominion, with a steady increase in the number of applicants for forms for taking daily weights.

The nature of the work is changing somewhat; many of the associations show a decreased membership not because there are fewer cows being recorded, but for the simple reason that dairymen are not asking the department for so much help, but are keeping their own records personally and are buying milk testing machines. In one factory eleven patrons purchased hand testers. Dairymen feel their need of records.

This serves to point clearly in the direction, so frequently advocated by officials of this branch, of some simple form of general farm bookkeeping being adopted not only for the individual dairy cow, but for each separate department of farm operations. Maximum profit is then readily traced. There has been a decided improvement in both the neatness and completeness of the records received, in many cases they are evidently a work of pride on the part of some of the gentler sex; and it is clear that some dairymen own or have ready access to typewriters.

A summary of the particular extension of the movement where each district is termed a 'Dairy Record Centre' is included further on.

The dairy tests, or milking competitions as conducted by members of the staff in former years were again held at the fall fairs at Woodstock, Ont., Perth, Ont., Sherbrooke, Que., and Amherst, N.S., and attracted more attention than ever.

Members of the staff were also at Toronto exhibition, the Ottawa winter fair, and on the 'Better Farming Special' train in Ontario to draw the attention of the various throngs of interested dairymen and factory men to cow testing.

TEST EACH INDIVIDUAL COW.

It is important to bear in mind that the immediate object of cow testing is to ascertain the performance of the individual cow. Such figures as are given in this report are the records of many thousand individual cows which obviously have to be greatly condensed. The benefit of the work to the average dairyman lies not in the information obtained regarding all his cows taken as one herd, added up, summarized and averaged, but in the careful investigation of the merits of each cow composing that herd taken separately and individually.

There are many good herd averages included in the various associations indicative of high class dairying, such as 17 cows with an average of 6,758 pounds of milk, 3·7 test, and 248 pounds of fat: 23 cows with an average of 8,393 pounds of milk, 3·2 test, and 274 pounds of fat: 10 cows averaging 8,671 pounds of milk, 3·4 test, and 299 pounds of fat, and others higher.

But the important point of the individual's ability, not the herd average, is the one to notice. Contrasts may be found in hundreds of herds. Two individual records will serve here to show the advantage of knowledge, not guess work. One cow offered

for sale at a low price because of her poor appearance found no purchaser, nobody liked her looks. But the season's work showed a production of 8,215 pounds of milk and 338 pounds of fat. Surely it pays to test, not simply judge, and condemn, the appearance.

Name is not everything. A three-year-old high grade Jersey, from which much might be expected, rewarded her owner with a bare 49 pounds of fat during the whole season.

RECORDS SHOULD BE KEPT FOR THE FULL PERIOD OF LACTATION.

It should always be kept in view that because a cow is on the premises for twelve months, involving a certain expenditure during that whole time, therefore the income derived from her must also be viewed from the point of total production during that whole period of twelve months. Several excellent records of one month are included in this report, such as 1,815 pounds of milk and 70 pounds of fat in 30 days, but often the total production of such a cow for the whole twelve months is not known. Unfortunately, it happens in too many instances that a record is kept for one month, or two, then the cow is valued according to that brief season of production. The old proverb 'slow and steady wins the race' applies with telling force to the dairy cow. The persistent milker with only a comparatively small yield may give a far better account of herself at the end of the whole season, than the cow with the brief meteoric career. Each cow should be recorded for the full period of lactation.

What is worth doing at all is worth doing well, and as cow testing has abundantly proved its value to the dairyman, it must surely be evident to every one commencing to weigh and sample that to make records useful as guides in selection they must be kept not for two or three months but from beginning to end of the milking season. A cow is not a common day labourer liable to be discharged when the whistle blows, she is a contributor to the yearly income: hence the incomplete record is only an aggravation and indeed may be misleading. Give each cow full credit for all she produces.

The full force of this is readily seen when one has kept records for a year or two. For instance, in one herd the comparison between two cows is briefly this: in five years one has given 835 pounds of fat, but the other has given 1,380 pounds. There is definite information for intelligent action for the owner in retaining a cow for building up a herd, or for the purchaser who is willing to pay for a cow on her merit.

TEST AS WELL AS WEIGH.

It is well to remember that because the fat in milk is regarded as a fair basis in computing the value of that milk, therefore the weight of milk alone as given by any cow is not necessarily a true indication of the value of her product. That milk may be very poor in its fat content, or it may be of fair quality, while it is difficult to judge of the respective richness unless it is tested. And as pointed out in this report there are several known cases of milk testing far below 3 per cent of fat, for which milk, if sold separately on its valuation of fat content, there would be little demand. Even without there being a particularly wide variation in the test, one cow may give a thousand pounds of milk, another only seven hundred and seventy pounds during a month, but each cow would yield 30 pounds of fat.

PROFIT PER COW.

In a herd at Avonbank, Ont., the varying profit per cow is plainly brought out. The total yield of 4 cows aged 4, 3, 8 and 3 amounts to 16,661 pounds of milk and 624 pounds of fat. The total yield of 2 cows aged 4 and 5 amounts to 17,610 pounds of milk and 641 pounds of fat. Thus it is seen that the two cows are at least twice as

valuable producers as the four. But that is not all. If the cost of feed be put at $35 per cow and the milk is valued at $1 per 100 pounds, it is found that the four cows return a total net profit above the cost of feed of $26.61, whereas the two cows return $106.10. Thus *one cow is as profitable as four.*

Five cows, ages 8, 7, 5, 2 and 3 in one herd at Bertie, Ont., have an average production of 124 pounds of fat; four cows, ages 13, 5, 8, and 4, in a herd close by, average 398 pounds of fat. With fat at 25 cents per pound and feed at $30 per cow, *one cow makes as much profit as sixty-nine.*

In a herd at Star, Ont., one 2 year-old produces only 2,020 pounds of milk and 67·6 pounds of fat; another 2 year-old produces 8,125 pounds of milk and 248 pounds of fat. Both being fed alike, how much more profit is there in the one case than in the other?

The influence of poor cows in profit is forced on the attention by the following comparison.

In two adjoining herds at Point Abino, Ont., 2 cows aged 8 and 6, produce a total of 599 pounds of fat; and 5 cows, aged 5, 3, 2, 8 and 2 produce a total of 576 pounds of fat. Valuing feed at only $28 per cow for the 5 cows there would be a *total profit of only $4* if the fat is reckoned at 25 cents per pound; allowing $30 each to feed the 2 cows there is a *total profit of $89.75.*

This means an average profit in one case of only *80 cents per cow*, but in the other case an average profit of $44.87 per cow. Thus comparing the cows on the basis of net returns, *one cow yields as much profit as fifty-six poor ones.*

Supposing the two owners wished to make one thousand dollars clear profit, one man needs to handle only twenty-two cows, the other would have *the colossal task of keeping one thousand two hundred and fifty.*

In considering the question of profit per cow it may well be borne in mind that some dairy farmers on this continent are making excellent profit with grade cows: such records as 500 pounds of fat, feed cost of $80 and *net profit of $100 per cow* may well stimulate other factory patrons.

In two adjoining herds at Scotch Line, one herd of six cows has an average yield of 7,476 pounds of milk and 260 pounds of fat; the other herd of 14 assorted Ayrshire, Holstein and Shorthorn grades averages 3,657 pounds of milk and 130 pounds of fat, *only just half* the other average. In this poorer herd two cows give a total yield of 4,845 pounds of milk each; but four cows, ages 3, 4, 4 and 4, have a total production of only 2,358 pounds of milk each. Valuing their feed at $25 the two best cows in the herd each made a profit of $23.45. If the feed be valued at only $23 per cow each one of the four poorest seems to return to her owner the astounding sum of *fifty-eight cents profit* on her keep for the year.

WHAT SOME FARMERS THINK OF COW TESTING.

'I have kept records now for three years and my herd average has increased from 6,100 pounds of milk per annum to 8,200 pounds. One cow with ordinary care and two milkings per day gave over 12,000 pounds of milk.'

'I might just say that we are delighted with the plan and if we could not get record blanks, would have to make some. We have discovered two boarders and saved the life of one which we thought no good.'

'It costs me less now to produce 9,000 pounds of milk per cow than it did to produce 6,500 pounds.'

'With the same number of cows I received $233 last month, whereas my best month three years ago I got only $55.'

'I get more milk now from 19 cows than I used to obtain from 32 cows.'

Cow testing is thus seen to be one of the best labour-saving propositions that a Canadian dairyman can entertain.

A great many instances were detailed in last year's report of substantial increases in the yield of milk and fat and in the cash receipts per cow in various herds in the Dominion.

Table I.—Some Increased Yields from Cow Testing in Ontario.

Ontario Herds at	No. of Cows in Herd.	Now giving Pounds of Milk.	Used to give Pounds of Milk.	Increase per cow.	
				Pounds of Milk.	Per Cent.
Peterboro	20	8,978	6,709	2,269	33
Prescott	28	6,000	3,794	2,206	50
Cassel	14	8,000	5,000	3,000	60
Woodstock	11	10,500	5,500	5,000	90
Milton	23	8,200	4,000	4,200	100
Woodstock	20	9,144	4,500	4,644	103

Cow testing certainly 'pays.'

Table II.—Some Positive Gains from Cow Testing in Quebec.

Quebec Herds at	No. of Cows in Herd.	Now giving Pounds of Milk.	Used to give Pounds of Milk.	Increase per Cent.	
				Pounds of Milk.	Per Cent.
St. Emélie	15	6,725	5,534	1,191	21
St. Armand	17	6,482	5,218	1,264	24
Kelvingrove	15	5,760	4,199	1,561	37
Aird	12	7,269	3,792	3,477	91
Hemmingford	10	6,900	4,000	2,900	72
East Farnham	8	4,143	2,000	2,143	103

Cow testing certainly 'pays.'

Table III.—Summary of Average Yields of Herds for the Full Period of Lactation in the Province of Ontario, 1911.

Full Period of Lactation.	No. of Associations.	No. of Herds.	No. of Cows.	Average Yield.		
				Lbs. Milk.	Test.	Lbs. Fat.
Weights and tests	68	316	2,927	6,132	3·4	211·2
Weights only	12	15	188	6,448	.....	.....

Table IV.—Comparisons of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of Ontario, 1911.

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Eastern Ontario—						
Glengarry	McDonald	1	13	4,585	3·6	168·2
	Royal	1	9	4,210	3·7	156·4
	River Bank	2	33	5,045	3·9	198·2
	Tyotown	2	21	5,839	3·5	206·3
Grenville	Prescott	4	61	7,056	3·3	234·2
	Spencerville	3	36	5,587	3·3	184·2
Lanark	Balderson	7	56	6,915	3·5	242·3
	Bathurst	11	101	4,816	3·6	172·8
	Drummond	3	43	5,377	3·6	195·1
	Drummond and Emsley	5	40	4,895	3·4	167·1
	Fallbrook	2	22	5,921	3·6	212·4
	Ferry Road	3	41	5,663	3·3	187·0
	Lanark	2	26	7,132	3·6	257·5
	Harper	4	31	5,132	3·6	183·7
	Weights only	1	9	6,797		
	Scotch Line	6	63	5,624	3·5	198·8
	Weights only	1	17	3,701		
	Tayside	9	77	6,057	3·5	217·0
	Weights only	1	18	6,570		
Leeds	Lansdowne	7	90	7,259	3·4	253·2
Northumberland	Wooler	4	31	5,507	3·6	199·6
Ontario	Brocklyn	1	8	6,108	3·5	217·7
Peterboro	Central Smith	4	57	7,184	3·4	245·8
	Ennismore	2	17	6,449	3·5	226·8
	Indian River	1	8	5,843	3·3	195·9
	Keene	6	46	6,082	3·3	201·4
	Maple Leaf	2	13	5,049	3·2	164·6
	Norwood	4	24	8,025	3·4	277·1
	Weights only	1	7	4,408		
	Peterboro	9	65	5,501	3·4	191·3
	Pine Grove	2	8	6,452	3·7	242·3
	Selwyn	1	3	5,245	3·6	192·9
	Shearer	6	59	5,954	3·4	203·2
	Weights only	1	9	5,079		
	Trewern	3	33	5,548	3·5	192·8
	Warsaw	5	41	5,256	3·4	181·0
	Westwood	1	7	4,557	3·5	160·4
Russell	Dalmeny	3	34	6,021	3·6	220·4
Victoria and Haliburton	Bobcaygeon weights only	1	12	6,997		
	Lorneville	2	16	5,261	3·3	174·6
	Reaboro weights only	1	6	5,756		
	Stor	2	21	6,324	3·0	191·5
Western Ontario—						
Brant	St. George	5	52	6,163	3·4	212·9
Elgin	Corinth weights only	2	26	6,748		
	Mapleton weights only	1	18	9.175		
Haldimand	Selkirk	18	93	5,322	3·4	185·1
Halton	Milton West	3	54	7,044	3·5	2.449
Huron	Bluevale	1	5	7,389	2·8	209·9
Lambton	Camlachie	2	17	5,417	3·4	182·4
	Forest	3	15	5,306	3·6	191·5
	Thedford	1	5	4,203	3·2	135·4
Middlesex	Ballymote	2	17	6,924	3·3	228·0
	Kerwood	1	5	5,321	3·7	196·8
Norfolk	Lynn Valley	2	9	6,448	4·1	265·3
Oxford	Beachville	4	69	6,654	3·4	226·8
	Brooksdale	1	12	7,462	3·3	247·4
	Burgessville	9	86	8,361	3·1	260·2
	Cassel	7	87	7,244	3·3	242·0
	E. and W. Oxford	13	131	6,816	3·2	224·0
	German Union	8	64	6,444	3·4	223·8

Table IV.—Comparisons of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of Ontario, 1911—*Concluded.*

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Western Ontario—*Con.*						
Oxford	Hickson	6	77	6,083	3·5	217·8
	Innerkip	5	64	8,155	3·3	273·7
	N. Oxford, weights only	2	27	7,197		
	Norwich Gore	6	48	6,895	3·1	217·1
	Norwich Jc	3	25	6,128	3·0	186·7
	Spring Creek	9	112	7,442	3 4	254·7
	Thamesford	1	11	6,171	3·2	199·6
	Uniondale	8	74	6,943	3·2	228·2
	Virtue	10	85	5,324	3·4	182·2
Perth	Avonbank	5	54	6,930	3·5	246·7
	Weights only	1	9	7,273		
	Black Creek	7	64	7,738	3·3	260·2
	Weights only	2	30	7,681		
	Elmbank	5	53	6,923	3·2	226·5
	Elma	10	114	5,217	3·5	186·1
	St. Marys	4	27	6,943	3 5	247·2
	Wallace	1	12	7,332	3·3	243·2
Welland	Bertie	14	81	5,900	3·7	223 7
	Point Abino	11	45	5,382	3·5	191·3
Wellington	Guelph	1	6	5,523	3·4	188·7

NOTE.—This table, and the similar table for each province, contains only a partial list of all the cows recorded during the year. A very great many more records were received but could not be included in this table of total yield for the full period of lactation because they were only records of four or five months and hence were incomplete.

Records should be kept of each cow for the full milking period.

One of the first points noticeable in this table is the fact that some herds in Eastern Ontario are making good records: Prescott, Lanark, Lansdowne, Central Smith and Norwood are well over the 7,000 pounds mark. Such yields put to blush the records from Glengarry of only 4,210 and 4,585 pounds of milk per cow. The average of 277 pounds of fat in the herd of 24 cows at Norwood should encourage greater activity in increasing the yield through weighing and sampling so as to know which cows to dispose of and which to retain.

The highest average herd test is 4·1 per cent of fat from 9 cows at Lynn Valley, the lowest is 2·8 from 5 cows at Bluevale. In this herd there are only 2 tests of 3·2 per cent of fat in July, the other cows all test 3·0 or less.

Among the 21 cows grouped at Star that average only 3·0 test there are individual monthly tests of 3·6, 4·0 and even 4·5 per cent of fat, but these are completely offset by comparatively large yields of milk testing only 2·6, 2·5, 2·3 and 2·0 per cent of fat.

In the average yield of 6,132 pounds of milk and 211 pounds of fat, from 2,927 cows there are included such remarkable extremes as 3,070 pounds of milk and 101 pounds of fat, and 12,200 pounds of milk and 474 pounds of fa' This indicates very clearly that a simple knowledge of the average production cannot possibly satisfy the wideawake dairyman, he needs knowledge of each individual cow's production.

The records of a few scattered cows are remarkable for their short milking period, many dried off after only 5 or 6 months' flow. Others show a reasonable season's work of 10 and 10½ months.

One strong argument in favour of weighing each milking is found in the satisfactory record at Mapleton of 9,175 pounds of milk in a herd of 18 grade cows, including 8,351 pounds of milk from a 2 year old.

A good average of 8,202 pounds of milk, 3·3 test and 275 pounds of fat from 16 cows is found in a herd at Milton; this includes the yields of five heifers. The highest yield in the herd is 12,390 pounds of milk and 406 pounds of fat from an 8 year old.

There are not many herds recorded in which the average yield of milk is over 200 pounds of fat for each cow, there generally being one or two individuals that score below that. One of those that do go over that mark is found at Prescott, where 10 cows average 7,478 pounds of milk, 3·2 test, 242·9 pounds of fat, the lowest yield being 214·6 pounds of fat. Within a few miles of this is another herd where only one cow gives over 200 pounds of fat, the rest in the herd of 18 cows are all below that yield.

Two views of the Quebec Seminary's "Little Farm" at St. Joachim, one of the oldest dairy farms in North America.

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TABLE V.—COST OF PRODUCING MILK AND FAT IN TEN HERDS, 1911, PETERBORO' AND OXFORD COUNTIES, ONTARIO.

Breed.	No. of Herds.	No. of Cows.	Average Yield per Cow.		Average Cost of Feed per Cow.	Cost of Production.		Value of Fat at 25 cts. per lb.	Profit Over Cost of Feed per Cow.
			Lbs. Milk.	Lbs. Fat.		Milk per 100 lbs.	Fat per lb.		
					$ cts.	cts.	cts.	$ cts.	$ cts.
Holstein grades	3	40	8,443	284	47 48	56·2	16·7	71 12	23 64
Ayrshire and Ayrshire grades	3	62	6,911	254	42 46	61·5	16·7	63 50	21 04
Shorthorn grades	4	39	5,465	196	35 76	65·5	18	49 12	13 36
RECORD OF TWO HERDS, OXFORD COUNTY, 1911.									
Holstein grades	1	17	9,434	310	50 80	53·9	16·3	77 50	26 70
Shorthorn grades	1	11	4,150	153	26 65	64	17·3	38 25	11 60

From this table No. V it is immediately apparent what a remarkably wide variation there is in the average yield of milk and fat per cow, in the income per cow, in the cost of feed per cow and in the profit over the cost of feed. Where the cost of feed is lowest the cost of production is high and the profit is low.

The striking fact is this, that though the cost of feed may be as high as $50.85 per cow *the profit is also high.* In fact the highest profit shown in the table, $26.70 per cow, is just precisely where the cost of feed is highest. No better illustration could possibly be wanted of the immense benefit resulting from selecting cows on their actual records which are a positive guide as to individual capacity of producing milk and fat at a profit.

The figures in this table are based on the information supplied by the owners of the herds.

TABLE VI—Summary of Average Yields of Herds for the Full Period of Lactation in the Province of Quebec, 1911.

Full Period of Lactation.	No. of Associations.	No. of Herds.	No. of Cows.	Average Yield.		
				Lbs. Milk.	Test.	Lbs. Fat.
Weights and tests	37	185	2,036	4,564	3·9	181·7
Weights only	12	15	150	5,127	.....	.....
Total	49	200	2,186	.....	.....	.....

TABLE VII.—Comparisons of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of Quebec, 1911.

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Brome	Adamsville	4	53	4,201	3·8	160·5
	Foster	2	31	4,594	3·9	182·3
	Knowlton	14	134	3,794	3·9	150·6
Bagot	St. Liboire, weights only	1	8	4,553		
	Ste. Rosalie	4	32	6,008	4·2	257·4
	Weights only	1	12	8,196		
	Upton, weights only	1	11	4,967		
Berthier	Cap St. Gabriel	6	53	4,960	4·0	203·3
Chateauguay	Ormstown	1	18	6,947	4·7	328·6
Compton	Compton	4	58	5,250	3·9	209·1
	Martinville	1	9	3,096	3·7	115·0
Kamouraska	St. Germain	3	22	4,472	4·0	181·2
L'Assomption	L'Assomption, weights only	1	2	5,571		
Labelle	St. André Avellin, weights only	1	14	3,332		
Laprairie	St. Edouard de Napierville, weights only	1	12	6,331		
L'Islet	St. Aubert, weights only	2	18	4,301		
	L'Islet	5	22	2,874	4·1	119·2
	Village des Aulnaies	7	51	3,473	3·7	131·0
Lotbinière	Ste. Emilie	12	103	4,189	4·3	179·9

TABLE VII.—Comparisons of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of Quebec, 1911—*Concluded.*

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Missisquoi	St. Armand	4	70	5,690	4·0	228·4
	Weights only	1	26	5,089		
	Cowansville	10	165	5,040	4·0	203·4
	Clarenceville	1	8	4,898	3·6	180·1
	Dunham	1	7	3,342	4·0	136·2
	Dairy Valley	5	54	5,001	3·4	178·9
Montcalm	Ruisseau St. Georges, weights only	1	9	5,948		
Montmagny	Cap St. Ignace	6	46	3,421	3·8	131·4
	St. Pierre, weights only	2	14	4,678		
	St. Thomas	4	30	4,433	4·0	181·1
Montmorency	St. Joachim	11	242	3,600	4·0	144·5
Richmond	Richmond & Melbourne	3	34	5,203	3·9	206·9
	Shipton	1	2	6,130	4·1	251·5
Rouville	St. Cesaire, weights only	1	10	4,885		
Shefford	South Stukeley	3	41	3,886	3·4	169·3
	West Shefford	6	124	3,979	4·0	152·9
Stanstead	Coaticook	2	23	5,186	3·9	202·4
	Dixville	2	16	4,166	4·0	167·8
	Hatley Centre	1	13	5,612	3·5	200·2
	St. Herménégilde	3	40	3,734	3·9	148·3
	North Hatley	6	41	4,607	3·7	172·1
St. Hyacinthe	Dairy School	8	124	4,901	4·1	201·4
	St. François	16	133	4,415	4·0	179·8
	Grand Rang	6	56	4,708	3·9	183·3
	St. Hyacinthe le Confesseur	9	66	4,574	4·1	188·8
	Point du Jour	5	34	4,389	4·2	183·9
	St. Thomas d'Aquin	6	58	5,473	4·1	226·3
St. Maurice	Point du Lac	2	17	4,555	4·0	173·8
Temiscouata	Ste. Françoise weights only	2	14	3,681		
Wright	Ste. Cecile de Masham	1	6	3,069	3·6	113·2

See Note at foot of Table IV.

The extremes that arrest attention in this table are 22 cows at L'Islet with an average production of only 2,874 pounds of milk and *119·2* pounds of fat, and 18 cows at Ormstown with an average production of 6,947 pounds of milk, 4·7 test, *328·6* pounds of fat.

With milk valued at $1 per 100 pounds the *difference* in the gross receipts amounts *$40.73 per cow.*

There is also a marked difference between the average yield of 3,600 pounds of milk from 242 cows at St. Joachim, and 5,040 pounds of milk from 165 cows at Cowansville.

In several herds the difference runs as high as 2,500 pounds of milk and 100 pounds of fat between the yield of the best cow and that of the poorest cow in the same herd, comparing only cows five years old and upwards, not heifers.

There are many mature cows included in this table giving only 3,500 pounds of milk and 160 pounds of fat, but on the other hand there are several good yields of 7,300 pounds of milk and 270 pounds of fat.

One of the best yields is 9,230 pounds of milk and 376 pounds of fat from a 4-year old at Cowansville, while one cow at Ormstown gives 10,395 pounds of milk and 503 pounds of fat.

In two adjoining herds at Dairy Valley one 3-year old gives only 99 pounds of fat while another gives 197 pounds of fat.

Some old cows seem to be scarcely worth keeping, cows 13 and 14 years old giving only 138 and 158 pounds of fat. One 12 years old gave only 52 pounds of fat.

In many herds the individual production runs all the way from 79 to 212 pounds of fat, but in some herds there is remarkably even production, for instance seven cows at St. Francois, where the lowest yield is 195 pound of fat and the highest 236 pounds of fat, with an average of 212·9 pounds.

Another type of even production is found at Village des Aulnaies where the yields vary from 134 to 157 pounds of fat, the six cows averaging only 141·6 pounds of fat.

In contrast to this are herds of eight and thirteen cows where not a single animal yields over 179 pounds of fat, the herd average running at 3,607 pounds of milk, 4·1 test and 149·5 pounds of fat. In this particular herd the two 3-year old heifers have better yields than the six and eight year olds.

One noticeably good herd average is found at St. Thomas d'Aquin, 14 cows giving 7,188 pounds of milk, 4·3 test, 309·1 pounds of fat. Another herd, one of 12 cows, in the same association averages only 4,318 pounds of milk, 3·9 test, 171 pounds of fat.

One herd of 5 cows gives a total yield of 28,510 pounds of milk and 1,116 pounds of fat, but another herd of 8 cows gives a total yield of 23,630 pounds of milk and 962 pounds of fat.

Note the extra value of $48.80 given by three fewer cows. It looks like a great deal of unnecessary labour to milk, feed and care for *eight* cows, when *five* bring more income. Comparing two herds of seven cows each, one herd earns *$63.84* more than the other. In two more herds of seven cows each, one lot has a total yield of 1,426 pounds of fat, the other only 896 pounds, the one greater than the other by *59 per cent.*

One cow six years old yields an income of $77.40, another of the same age in the same herd yields only $49.50, *a difference of $27.90.*

At St. Thomas d'Aquin the average yield of 56 cows in six herds is 5,515 pounds of milk; the best herd of 14 cows gives 7,146 pounds of milk and 300 pounds of fat, the poorest average is 4,261 pounds of milk and 162 pounds of fat from a herd of 12 cows. With fat at 30 cents per pound the *average income per cow is $41.40 greater* with the best herd. In one herd the best cow yields 363 pounds of fat and the poorest cow only 176 pounds, *a difference* in value *of $56.10.*

A scrutiny of the records at St. Hyacinthe, Que., shows that 141 cows gave less than 4,000 pounds of milk during their complete period of lactation. Out of the 141 cows only 38 were 2 year-olds, and 28 were 3 year-olds; the ages of the remainder run from 4 to 17. Out of the 141 cows, 32 gave less than 3,000 pounds of milk. One cow, 14 years old, gave only 1,840 pounds of milk.

Some recent records in Scotland showed that cows over 10 years old proved better milkers than cows under 10. One cow aged 20 gave 8,780 pounds of milk testing 3·7. In one herd of 12 cows in Ontario, the five oldest, ranging in age from 11 to 13 were far heavier producers than the other seven.

This again goes to prove that it is not a question of applying general rules of age or breed to a modern herd of milch cows, but it is of paramount importance to ascertain *each individual* yield of milk and fat.

In classifying some 2 year-old heifers in British Columbia in the report of the Dairy Division for 1909 it may be noted, in contrast, that 38 out of 64 heifers gave over 4,000 pounds of milk, and 23 out of the 64 gave over 225 pounds of fat. A reasonable expectation from a heifer is a yield of 4,500 pounds of milk or 200 pounds of fat.

TABLE VIII.—PROVINCE of Quebec.—*Weights only.*

Contrasts between the Best and the Poorest Cow in the Same Herd in Six Associations.

Association.	Average Yield of Herd.		Best Yield.		Poorest Yield.		Difference between best and poorest yield.
	No. of Cows.	Lbs. of Milk.	Lbs. of Milk.	Age.	Lbs. of Milk.	Age.	Lbs. Milk.
St. André Avellin	14	3,332	5,801	9	1,808	4	3,993
St. Aubert	15	3,500	4,430	5	2,220	14	2,210
St. Cesaire	10	4,885	5,715	8	4,098	4	1,617
St. Edouard	12	6,331	8,029	6	5,030	3	2,999
Ruisseau St. Georges	9	5,948	8,080	7	4,130	7	3,950
Ste. Rosalie	12	8,196	11,246	5	5,647	3	5,599

The average difference in yield between the best and the poorest cow in these six herds is *3,395 pounds of milk.*

There are very clear cut differences (*a*) between the average herd yields of 3,332 and 8,196 pounds of milk, (*b*) between the yields of the best cows, 4,430 and 11,246 pounds of milk, and (*c*) between the yields of the poorest cows, 1,808 and 5,647 pounds of milk.

There are three points worth noting in this table.

1. The good record of 11,246 pounds of milk made by the 5 year old cow at Ste. Rosalie. (There are two other cows in this herd giving over 10,300 pounds of milk.)

2. The good yield of the poorest cow in this same Ste. Rosalie herd, as well as the yield of 5,030 pounds of milk from the other 3 year old in the herd at St. Edouard.

3. The two poorest yields of 1,808 and 2,220 pounds of milk respectively are from cows 4 and 14 years old.

Such poor specimens of cows might well be classed elsewhere than in a modern dairy herd.

TABLE IX.—Results of Selection in Breeding. Herd at Cowansville, Que.

Year.	Susie, Mother of Both.			Blossom.			Nellie.		
	Milk.	Fat.	Age.	Milk.	Fat.	Age.	Milk.	Fat.	Age.
	Lbs.	Lbs.		Lbs.	Lbs.		Lbs.	Lbs.	
1906	6,990	355	8	4,505	206	2	.....	.....	...
1907	8,150	418	9	5,405	293	3	4,075	178	2
1908	7,505	386	10	6,896	365	4	4,475	219	3
1909	7,548	360	11	8,126	407	5	6,375	313	4
1910	7,603	357	12	6,894	350	6	7,149	333	5
1911	5,542	266	13	7,242	361	7	6,738	312	6
	Lbs. of Milk.	Test.	Lbs. of Fat	Lbs. of Milk.	Test.	Lbs. of Fat	Lbs. of Milk.	Test.	Lbs. of Fat
Average Yield	7,223	4·9	357	6,511	5·0	331	5,762	4·7	271

The yield of a fairly good cow and two of her progeny are here shown, indicating why a good cow is worth keeping if an attempt is being made to build up a dairy herd with records of production as a guide.

TABLE X.—SUMMARY of Average Yields of Herds for the Full Period of Lactation in the Province of Nova Scotia, 1911.

Full Period of Lactation.	Number of Associations	Number of Herds.	Number of Cows.	Average Yield.		
				Lbs. of Milk	Test.	Lbs. of Fat.
Weights and Tests.	7	23	129	4,524	4·3	198·5

TABLE XI.—COMPARISONS of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of Nova Scotia, 1911.

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Colchester.	Brookfield.....	1	7	3,978	3·6	145·0
	Tatamagouche.	1	7	5,344	4·4	237·2
Kings.....	Kingston.	2	17	5,529	4·0	222·0
Pictou.	Durham.	3	19	3,251	4·5	146·5
	Salt Springs.....	3	19	3,429	4·7	164·0
	Scotsburn	9	44	4,445	4·2	190·7
Yarmouth	Yarmouth..	4	16	5,693	5·0	284·0

TABLE XII.—SUMMARY of Average Yields of Herds for the Full Period of Lactation in the Province of New Brunswick, 1911.

Full Period of Lactation.	No. of Associations	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Weights and Tests.....	5	16	124	4,546	3·9	179·3
Weights only.....	1	1	6	6,151	.....	.....

TABLE XIII.—COMPARISONS of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of New Brunswick, 1911.

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Kings	Penobsquis	7	67	4,532	4·4	201·6
	Sussex	1	1	4,130	2·5	104·1
	Victoria Mills	6	37	4,287	3·8	165·8
Sunbury and Queens	Welsford	1	10	5,453	4·8	266·3
Westmoreland	Petitcodiac	1	9	4,331	3·6	159·0
	Salisbury, weights only	1	6	6,151		

TABLE XIV.—SUMMARY of Average Yields of Herds for the Full Period of Lactation in the Province of Prince Edward Island, 1911.

Full Period of Lactation.	No. of Associations	No. of Herds.	No. of Cows.	Average Yield.		
				Milk.	Test.	Fat.
				Lbs.		Lbs.
Weights and Tests	10	101	669	4,276	3·8	163·4
Weights only	2	2	23	5,568		
			692			

TABLE XV.—COMPARISONS of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of Prince Edward Island, 1911.

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Pounds of Milk.	Test.	Pounds of Fat.
Prince	Central Lot 16 weights only.	1	13	4,894		
	Dunk River	27	193	3,761	3·7	140·9
	Kensington	24	146	4,167	3·6	153·9
	North Tryon	4	24	5,443	3 6	201·7
	Summerside weights only	1	10	6,243		
	" weights and tests	1	6	3,655	3·3	122·3
Queens	Crapaud	11	76	5,919	3·8	225·4
	Emerald	1	10	4,635	3·8	180·2
	Marshfield	2	7	3,741	3·7	138·9
	New Glasgow	2	9	3,271	3·6	120·6
	North Wiltshire	1	6	3,927	5·1	201·2
	Park Corner	28	192	4,244	3·5	149 2

TABLE XVI.—SUMMARY of Average Yields of Herds for the Full Period of Lactation in the Province of British Columbia, 1911.

Full period of Lactation.	No. of Associations.	No. of Herds.	No. of Cows.	Average Yield.		
				Pounds of Milk.	Test.	Pounds of Fat.
Weights & Tests	4	41	364	5,795	4·0	234·0
Weights only	1	1	15	7,055		

TABLE XVII.—COMPARISONS of Average Yields of Herds Recorded for the Full Period of Lactation in the Province of British Columbia, 1911.

Electoral District.	Name of Association.	No. of Herds.	No. of Cows.	Average Yield.		
				Pounds of Milk.	Test.	Pounds of Fat.
Nanaimo	Cowichan	28	212	5,624	4·1	233·1
	Nanaimo	7	38	5,121	4·1	226·5
New Westminster	Chilliwack weights only	1	15	7,055		
	Edenbank	3	88	6,956	3·5	246·8
Islands	The Islands	3	26	5,481	4·1	229·6

TABLE XVIII.—Individual Herds, 1911.

Full period of Lactation.	No. of Herds.	No. of Cows.	Average Yield.		
			Pounds of Milk.	Test.	Pounds of Fat.
Weights and Tests	5	34	3,928	3·4	134·5
Weights only	21	215	5,867		

TABLE XIX.—SUMMARY of Average Monthly Yields, 1911.

Month and Province.	Total Number of Cows.	Average Yield.		
		Milk.	Test.	Fat.
		Lbs.		Lbs.
January—				
Nova Scotia	93	572	4·5	25·9
British Columbia	315	576	4·4	25·2
Prince Edward Island	147	621	3·8	23·8
New Brunswick	79	505	4·5	23·2
Ontario	580	600	3·6	21·7
Quebec	372	469	4·2	19·8
Sundry	8	727	3·5	25·3
General average yield	1,594	561	4·0	22·5
General average weights only	379	535	.....	.....
February—				
Nova Scotia	94	600	4·4	26·4
British Columbia	319	611	4·3	26·0
New Brunswick	80	567	4·5	25·5
Prince Edward Island	111	707	3·6	25·2
Ontario	512	685	3·5	24·2
Quebec	328	539	4·0	21·9
Sundry	18	618	3·5	21·4
General average yield	1,462	625	3·9	24·4
General average weights only	350	652	.....	.....
March—				
Prince Edward Island	134	725	3·8	28·4
New Brunswick	91	600	4·5	27·1
Nova Scotia	105	628	4·3	27·0
Ontario	712	785	3·4	26·7
British Columbia	320	632	4·2	26·2
Quebec	488	594	3·7	22·4
Sundry	20	728	3·1	22·9
General average yield	1,870	688	3·7	25·5
General average weights only	457	766	.....	.....
April—				
British Columbia	380	695	4·0	28·2
Ontario	1,592	854	3·3	28·1
Prince Edward Island	163	729	3·7	27·1
Nova Scotia	130	636	4·2	26·7
New Brunswick	90	591	4·3	25·5
Quebec	1,095	598	3·5	21·3
Sundry	25	651	3·3	21·5
General average yield	3,475	734	3·5	25·8
General average weights only	653	766	.....	.....
May—				
Ontario	3,102	948	3·2	30·8
British Columbia	418	745	4·0	29·9
Nova Scotia	174	611	4·4	26·3
Quebec	2,670	667	3·7	25·0
Prince Edward Island	359	679	3·5	23·8
New Brunswick	105	558	4·2	23·1
Sundry	46	632	3·8	24·3
General average yield	6,874	796	3·5	27·9
General average weights only	831	843	.....	.....

TABLE XIX.—SUMMARY of Average Monthly Yields, 1911—*Continued.*

Month and Province.	Total Number of Cows.	Average Yield.		
		Milk.	Test.	Fat.
		Lbs.		Lbs.
June—				
Ontario	1,042	950	3·2	31·0
British Columbia	427	716	4·0	28·6
Prince Edward Island	992	781	3·6	28·3
New Brunswick	141	650	4·1	26·6
Quebec	3,606	709	3·7	26·2
Nova Scotia	359	573	4·4	24·9
General average yield	9,621	813	3·5	28·7
General average weights only	791	888	.....	.....
July—				
Ontario	3,981	788	3·3	26·1
British Columbia	345	651	3·9	25·8
Prince Edward Island	1,080	717	3·5	25·5
Quebec	3,625	599	3·8	23·1
Nova Scotia	321	529	4·2	22·4
New Brunswick	146	555	3·8	21·6
Sundry	37	619	3·4	21·4
General average yield	9,535	690	3·5	24·7
General average weights only	727	747	.....	.....
August—				
Ontario	3,744	721	3·4	24·6
British Columbia	342	631	3·7	23·9
Quebec	3,358	517	4·0	21·0
Prince Edward Island	905	575	3·5	20·7
New Brunswick	133	455	4·1	19·0
Nova Scotia	207	433	4·3	18·9
Sundry	16	632	3·4	21·5
General average yield	8,705	613	3·6	22·6
General average weights only	624	698	.....	.....
September—				
British Columbia	334	610	3·9	24·3
Ontario	3,302	639	3·6	23·2
Quebec	2,621	480	4·2	20·4
Prince Edward Island	809	536	3·7	20·2
Nova Scotia	163	436	4·5	20·0
New Brunswick	122	409	4·5	18·5
Sundry	18	565	3·9	22·1
General average yield	7,369	561	3·8	21·8
General average weights only	615	638	.....	.....
October—				
British Columbia	331	565	4·2	24·2
Ontario	2,756	554	3·7	20·8
Nova Scotia	154	416	4·5	19·1
Quebec	2,019	418	4·3	18·2
New Brunswick	86	370	4·8	18·1
Prince Edward Island	641	467	3·8	18·0
Sundry	15	526	3·6	19·0
General average yield	6,002	439	4·0	19·7
General average weights only	591	568	.....	.....

TABLE XIX.—SUMMARY of Average Monthly Yields, 1911—*Concluded.*

Month and Province	Total Number of Cows.	Average Yield.		
		Milk.	Test.	Fat.
		Lbs.		Lbs.
November—				
British Columbia	292	570	4·4	25·4
Nova Scotia	146	455	4·5	20·8
Ontario	1,931	467	3·7	17·5
New Brunswick	75	329	5·1	16·8
Prince Edward Island	341	397	4·0	15·9
Quebec	1,344	332	4·4	14·6
Sundry	6	659	3·4	22·8
General average yield	4,135	422	4·0	17·1
General average weights only	467	463	.....	.....
December—				
British Columbia	301	564	4·4	25·3
Nova Scotia	144	503	4·9	24·9
New Brunswick	71	351	5·5	19·4
Ontario	1,055	496	3·8	18·9
Prince Edward Island	146	480	3·8	18·3
Quebec	729	294	4·7	13·8
Sundry	8	607	3·7	22·6
General average yield	2,454	440	4·2	18·5
General average weights only	615	420	.....	.....

These average monthly yields correspond very closely with those for 1910; the first six months are slightly higher, and the second six months are a little lower.

This table is arranged by provinces with the highest yield of fat given first each month. Incidentally it may be noted that the average percentage of fat in Ontario milk is never amongst the highest, while both in May and June it is down to 3·2 even when averaging the yields of 3,102 and 4,042 cows.

The total number of monthly records made during the year was 7,100 for weights only, and 63,096 for weights and tests, making a total of 70,196.

Several contrasts might be noted in examining the records composing these monthly averages. At Lansdowne, Ont., for instance, the average yield of 123 cows in July was 31·4 pounds of fat, but 78 at Point Abino, Ont., average only 21·5 pounds, practically *ten pounds* less per cow. Both of these widely different weights are included in the general average yield for July of 26·1 pounds of fat for 3,981 cows in Ontario.

Similarly at West Shefford, Que., in September 100 cows average 15·6 pounds of fat; while 53 at Ste. Rosalie, Que., average 20·2 pounds, or *13·6 pounds* more per cow. In other words, to produce a certain weight of fat, at Ste. Rosalie, 100 cows would be sufficient, but at West Shefford to produce the same weight the owners would have the cheerful task of handling not simply 100, *but 187 cows.*

It is hoped that a simple but forceful sentence like that will draw attention to the urgent need of the average dairyman working with a better dairy equipment, effecting thereby an enormous saving of muscular energy and several other valuables. The old question 'Why is the average yield so low?' still awaits a satisfactory answer in many localities, and the high yields being obtained should incite to better attainments on the part of many individuals both human and bovine.

PERCENTAGE OF FAT.

TABLE XX.—AVERAGE Percentage of Fat during the Whole Year 1911, by Provinces.

Province.	Total Number of Tests.	Total Pounds of Milk.	Total Pounds of Fat.	Average Test.
Ontario	27,309	20,305,278	694,645·4	3·42
Quebec	22,255	12,324,000	486,620·4	3·94
British Columbia	4,124	2,628,506	108,380·2	4·12
Prince Edward Island	5,828	3,643,713	133,635·2	3·66
New Brunswick	1,219	616,402	26,989·5	4·37
Nova Scotia	2,090	1,104,628	48,726·7	4·41
Sundry Individuals	271	175,794	6,330·4	3·60

These average tests of fat correspond very closely with those in 1910.

During 1911 the number of cows tested each month in the Dominion varied from 1,462 in February to 9,621 in June, with a total of 63,096 tests for fat made during the year. The totals of the monthly yields were 40,798,321 pounds of milk and 1,505,-328·8 pounds of fat, thus indicating an average of 3·69 per cent of fat.

Table XXI.—Average Percentage of Fat, 1911 by Months and Provinces.

Months.	Ontario.		Quebec		New Brunswick.		Nova Scotia.		Prince Edward Island.		British Columbia.		Sundry Individual Herds.		Total.	
	Number of Cows.	Average Test.	Number of Cows.	Average Test.	Number of Cows.	Average Test.	Number of Cows.	Average Test.	Number of Cows.	Average Test.	Number of Cows.	Average Test.	Number of Cows.	Average Test.	Number of Cows.	Average Test.
January	580	3·6	372	4·2	79	4·5	93	4·5	147	3·8	315	4·4	8	3·5	1,594	4·0
February	512	3·5	328	4·0	80	4·5	94	4·4	111	3·6	319	4·3	18	3·5	1,462	3·9
March	712	3·4	488	3·7	91	4·5	105	4·3	134	3·8	320	4·2	20	3·1	1,870	3·7
April	1,592	3·3	1,095	3·5	90	4·3	130	4·2	163	3·7	380	4·0	25	3·3	3,475	3·5
May	3,102	3·2	2,670	3·7	105	4·2	174	4·4	359	3·5	418	4·0	46	3·8	6,874	3·5
June	4,042	3·2	3,606	3.7	141	4·1	359	4·4	992	3·6	427	4·0	54	3·8	9,621	3·5
July	3,981	3·3	3,625	3·8	146	3·8	321	4·2	1,080	3·5	345	3·9	37	3·4	9,535	3·5
August	3,714	3·4	3,358	4·0	133	4·1	207	4·3	905	3·5	342	3·7	16	3·4	8,705	3·6
September	3,302	3·6	2,621	4·2	122	4·5	163	4·5	809	3·7	334	3·9	18	3·9	7,369	3·8
October	2,756	3·7	2,019	4·3	86	4·8	154	4·5	641	3·8	331	4·2	15	3·6	6,002	4·0
November	1,931	3·7	1,344	4·4	75	5·1	146	4·5	341	4·0	292	4·4	6	3·4	4,135	4·0
December	1,055	3·8	729	4·7	71	5·5	144	4·9	146	3·3	301	4·4	8	3·7	2,454	4·2

DAIRY RECORD CENTRES.

Dairy Record Centres were established in 1911 at Perth, Peterboro' and Woodstock in Ontario, at Brome and St. Hyacinthe in Quebec, and at Kensington, Prince Edward Island. In addition to paying special attention to cow testing and in many cases doing all the actual testing of milk samples himself, the recorder in charge at each centre collected various details concerning dairy herds in his vicinity, some of which are tabulated herewith. The cost of feed per cow was worked out in close consultation with each dairyman personally. This has resulted in awakening very great interest amongst such men as heretofore were feeding all cows alike, regardless of the individual production of milk and fat. Consequently these farmers may be expected now to feed more in accordance with the best practice of the skilful man who coaxes each cow to do her best, by studying the various tastes and preferences, by feeding liberally, and by not needlessly measuring out high priced meal and concentrates to cows not in possession of sufficient dairy tendency and capacity to turn feed into an adequate and paying quantity of milk and fat.

Table XXII.—Dairy Record Centres, 1911—Summary.

Details.	Perth, Ont.	Peterboro, Ont.	Wood-stock, Ont.	St. Hyacinthe Que.	Kensing-ton, P.E.I.	Totals and General Average.
Total number of herds	38	60	45	140	48	331
Total number of cows	397	488	538	1,382	383	3,188
Average yield per cow, pounds milk	4,375	5,078	5,780	4,011	4,256	4,547
Total number of acres cultivated	4,225	6,776	4,703	15,344	4,874	35,922
Average yield per acre, pounds milk	411	365	661	361	334	403
Average number cows of per 100 acres	9	7	11	9	8	9
Average feed cost of 100 pounds milk	76 cts.	72 cts.	69 cts.	71 cts.	65 cts.	71 cts.
Average cash receipts per cow	$43 75	50 78	57 80	40 11	42 56	45 47
Average cost of feed per cow	33 21	37 03	39 94	28 43	27 67	32 19
Average profit per cow	$10 54	$13 75	$17 86	$11 68	$14 89	$13 28

TABLE XXIII. PERTH, ONTARIO, DAIRY RECORD CENTRE, 1911.

Herd Number.	Sire. Breed. Grade.	Sire. Breed. Pure Bred.	Sire. Age. Years.	Number of Acres Cultivated Including Pasture.	Number of Cows in Herd.	Breed of Cows. Grade.	Breed of Cows. Pure Bred.	Average Pound of Milk per Cow Sent to Factory.	Milk Production. Average Yield per Cow.	Milk Production. Yield per Acre Cultivated.	Average Cash Receipts per Cow. (See Note)	Cost of Feed per Cow.	Feed Cost of 100 lbs. Milk.	Profit per Cow over Cost of Feed.
									Lb.	Lb.	$ cts.	$ cts.	$ cts.	$ cts.
A	.....	H	2	89	11	H.	H	3,822	4,322	524	43 22	32 10	0 74	11 12
B	.....	S	3	105	13	.....	S	.....	4,180	517	41 80	36 25	0 86	5 55
C	.....	S	2	290	17	S.	....	4,760	5.941	349	59 41	37 30	0 62	22 11
D	S	.....	3	135	10	A. & S.	.....	2,000	3,800	281	38 00	37 10	0 97	0 90
E	.....	H	3	88	11	H.	H	2,211	5,066	644	50 66	36 70	0 72	13 96
F	.....	H	.....	82	13	H.	.....	.....	4,336	689	43 36	37 50	0 86	5 86
G	.....	S	3	175	17	A.H.S. Her.	.....	2,737	3,333	341	33 33	28 10	0 84	5 23
H	.....	S	3	54	7	.....	S	2,951	3,986	516	39 86	32 40	0 81	7 46
I	.....	H	2	180	11	H. A. S.	...	3,205	5,541	338	55 41	33 00	0 59	22 41
J	.....	S	3	91	8	Gr.	.....	1,952	3,010	264	30 10	28 00	0 93	2 10
K	H	.....	2	88	9	H. & A.	.....	3,566	3,900	398	39 00	32 27	0 82	6 73
L	.....	H	4	125	9	S. & H.	2 H	2,983	3,360	241	33 60	30 91	0 91	2 69
M	.....	S	3	175	9	S.	.....	3,149	3,871	199	38 71	31 15	0 80	7 56
N	.....	Her	3	78	7	Gr.	...	3,566	4,181	375	41 81	29 10	0 69	12 71
O	S	.....	3	90	7	Gr.	.....	2,934	3,177	258	31 77	26 10	0 82	5 67
P	.....	2 H	3	300	15	S. & H.	2 H	.....	7,565	378	75 65	42 75	0 56	32 90
Q	S	.....	3	190	11	S. & A.	.....	2,939	3,710	214	37 10	36 00	0 97	1 10
R	S	.....	2	53	6	Gr. & S.	.....	2,303	2,737	309	27 37	20 00	0 73	7 37
S	.....	H	.....	90	9	S. & Gr.	....	4,398	4,736	473	47 36	37 40	0 79	9 96
T	S	.....	3	150	14	A. & G.	.....	3,710	4,210	392	42 10	33 00	0 78	9 10
U	.....	H	4	60	6	H. & G.	.....	5,295	5,995	599	59 95	38 35	0 63	21 60
V	.....	H	3	88	5	H. & G.	.....	5,170	7,010	398	70 10	46 30	0 66	23 80
W	.....	S	3	100	10	S. & Gr.	.....	3,256	3,600	360	36 00	31 00	0 86	5 00
X	.....	H	3	170	14	Gr.	.....	4,016	4,409	363	44 09	32 00	0 72	12 09
Y	.....	H	3	280	14	H.	H	3,120	3,656	182	36 56	28 50	0 77	8 06

In this, and the similar tables, in the columns for breed, J. stands for Jersey, H. stands for Holstein, S. stands for Shorthorn, A. stands for Ayrshire, Her. stands for Hereford, C. stands for Canadian, Gr. stands for grade of unknown breeding.

NOTE.—The value of the milk is estimated in each case at $1 per 100 pounds. This has been done because on some of the reports received the price of hauling milk and cream to the factory has been deducted, but in others this charge has not been deducted from the price given. There are also other charges in connection with manufacturing cheese and butter such as insurance, pasteurizing whey, salaries of secretary and salesman which are deducted from the price of milk in some cases but not in others. To simplify this matter the one uniform price has been taken.

It should be observed that in the great majority of the herds considered this one price system does not affect the figures shown in the column for 'profit per cow' to any very marked degree.

Two exceptions, however, may be noted. Herd B at Perth, Ont., now shows a profit per cow, but if the factory value of milk, which was only 80 cents, had been taken there would be an apparent loss. On the contrary, herd D at St. Hyacinthe, Que., now shows a loss per cow, because milk is only valued at $1 as explained above; but in the ordinary way this milk is valued at $2 per 100 because it is used for city consumption and the cows fed at a correspondingly high cost.

In this table it is found that the average yield of milk varies between 2,737 and 7,565 pounds per cow, showing the remarkable difference in yield of *4,828 pounds of milk per cow.* It will be noted that this average of 7,565 pounds of milk per cow is from a herd of 15, and only two are pure bred.

In the same herd (P) the cost of feed per cow is the highest but one out of the 25 herds in the table, standing at $42.75 per cow; but the profit per cow is the greatest, $32.90 on the average for each of the 15 cows.

This is eminently satisfactory, particularly so when contrasted with herd D where 10 cows average *90 cents profit each.*

Such startling contrasts should serve to interest every dairyman in the district in the vital question of profit made by each individual cow in the herd.

Mr. H. W. Coleman who was in charge of the Dairy Record Centre at Perth, Ont., states that he found quite a large number of pure bred dairy sires, but these, however, have been selected in many cases without any reference to their breeding, or the performance of their fore parents.

Many animals are also disposed of for beef at the ages of 3 or 4 years instead of being exchanged to some other portion of the country.

The continuation of the 'pooling system' is a drawback to the growth of the cow testing movement. One farmer expressed himself saying 'You are working from the wrong end and swimming against the current.'

Another feature, and it is a bad one, is the tendency to dry the cows at the end of 7 months. There are some redeeming features however, one is that some of the men who are paying attention to the individual performance of their cattle are the best patrons of their respective factories. Our cow census work showed that the best feeders in the country had the highest net profit per cow. These men took samples every month, kept daily weights, and fed the meal ration according to yield of milk.

All of the men who are making intelligent application of the information furnished as a result of cow testing are making satisfactory progress and are pleased with and continuing the work from year to year.

Table XXIV.—Some Differences in Yields, Perth, Ont., Dairy Record Centre, 1911.

Number of Cows.	Average Yield.		
	Pounds of Milk.	Test.	Pounds of Fat.
300	5,512	3·6	195·7
150 Best	6,634	.....	235
150 Poorest	4,288	.....	152
Good Herd— 12	8,173	3·4	284
Poor Herd— 15	3,945	3·8	149

If the 15 cows in the poor herd were as good as the 12 cows, the owner's *income would be increased by $634.*

If the second 150 cows were as good as the first 150 cows the yield of milk would be more by 351,900 pounds.

An extra 175 tons of milk is worth a little effort to obtain.

Some grade cows included in the 300 gave better yields than pure breds.

Four herds gave poorer yields still than the one in the table.

Eight herds gave good average yields of over 6,000, 7,000 and 8,000 pounds of milk. One has a fine lot of selected cows, none giving under 5,900 pounds of milk and 244 pounds of fat.

Some of the poor cows 5, 7 and 10 years old gave only 3,800 and 3,200 pounds of milk, and 130 and 114 pounds of fat.

Note that one lot of 150 cows gave on the average *$23.46 more per cow* than the other lot.

TABLE XXV. PETERBORO', ONT., DAIRY RECORD CENTRE, 1911.

Herd.	Sire. Breed. Grade.	Sire. Breed. Pure Bred.	Sire. Age. Years	Number of acres Cultivated Including Pasture.	Number of Cows in Herd.	Breed of Cows. Grade.	Breed of Cows. Pure Bred	Average Pounds of Milk per Cow sent to factory.	Milk Production. Average Yield per Cow.	Milk Production. Yield per Acre Cultivated.	Average Cash Receipts per Cow. (See note.)	Cost of Feed per Cow.	Feed Cost of 100 Lbs., Milk.	Profit or Loss per Cow over Cost of Feed.
									Lb.	Lb.	$ cts.	$ cts.	$ cts.	$ cts.
A	...	S	3	95	6	S	...	...	5,708	360	57 08	50 12	0 87	6 96
B	S	...	1	150	9	S	...	3,368	4,023	241	40 23	43 00	1 06	Loss 2 77
C	...	H	3	165	11	H	...	5,030	6,376	425	63 76	43 10	0 67	20 66
D	S	...	1	95	10	S	...	5,317	7,027	739	70 27	38 20	0 54	32 07
E	S	...	3	20	5	S	...	3,678	4,488	1,122	44 88	21 25	0 47	23 63
F	S	...	2	80	5	S	...	2,195	2,951	184	29 51	37 95	1 28	Loss 8 44
G	H	...	2	216	8	S. & A.	...	3,369	4,244	157	42 44	37 60	0 88	4 84
H	...	S	2	87	8	S	...	4,072	5,130	374	51 30	35 25	0 68	16 05
I	S	...	2	120	13	S	...	2,025	3,043	329	30 43	41 75	1 37	Loss 11 32
J	S	...	2	80	5	S	...	2,195	2,951	184	29 51	37 95	1 28	Loss 8 44
K	S	...	1	95	10	S	...	5,317	7,027	739	70 27	38 20	0 54	32 07
L	...	H	3	165	11	H	...	5,030	6,376	425	63 76	43 10	0 67	20 66
M	S	...	2	98	10	S	...	4,583	5,085	519	50 85	44 50	0 87	6 35
N	...	H	2	80	7	H	...	...	7,212	631	72 12	39 10	0 54	33 02
O	...	H	3	100	7	S. & H.	...	...	5,218	521	52 18	41 00	0 78	11 18
P	...	S	2	100	7	Gr. S. J.	...	...	5,772	404	57 72	29 36	0 50	28 36
Q	H	...	2	130	8	H. S. A.	...	...	5,843	359	58 43	47 48	0 81	10 95
R	S	...	1	90	9	A. & S.	...	...	4,520	351	45 20	44 87	0 90	0 33
S	S	H	S 2 H 3	70	6	S. & H.	...	...	6,657	570	66 57	28 85	0 43	37 72
T	...	H	2	185	10	H	H	...	8,671	144	86 71	43 50	0 50	43 21
U	...	H	4	50	6	H. A.	...	...	9,164	1,099	91 64	62 75	0 68	28 89
V	...	H	4	150	10	S. & H.	...	4,156	5,933	395	59 33	57 50	0 97	1 83
W	H	...	2	134	8	H	...	7,508	7,736	462	77 36	42 00	0 54	35 36
X	...	H	3	170	9	H	H	4,141	6,172	326	61 72	36 50	0 59	25 22
Y	...	J	2	80	8	H. & J.	...	3,670	5,639	563	56 39	23 25	0 41	33 14

In this table of results obtained in the Peterboro' section the yield of milk per cultivated acre varies from 144 to 1,122 pounds.

The average yield of milk per cow varies from 2,951 to 9,164 pounds.

The cost of feed per cow varies between $21.25 and $62.75 per cow. The items of feed in the first case were put at pasture, $5.50, roots $4, straw $6, corn $2, hay $2.50, grains 25 cents, oat sheaf $1. In the second case the feed was put at pasture $7, roots $8, corn $3, straw $2, hay 75 cents, grain $36.

With one herd there is a profit of 33 cents per cow, with four herds an apparent loss per cow, and with one herd a profit of $43.21 per cow.

Mr. A. L. Andress who was in charge of the work in the Peterboro' district draws attention to a strong argument in favour of cow testing, clearly pointing out that the average dairyman who takes up cow testing may expect an average increase of at least *twenty-three dollars per cow in three years.* That is how it has actually worked out here. Mr. Andress states:

'As near as we can determine from the cow census work the average production of the cows in this district is about 3,800 pounds, while *the average production of the cows in herds tested for three years or more is 6,137 pounds of milk and 212 pounds of fat.*

A pleasing feature of the work is the interest that the boys are taking in the cow testing which will no doubt be an influence towards keeping them on the farm.

'A number of cows that had been considered very poor by their owners have proved to be very profitable, some in fact are the best in the herd.

One of our best farmers bought a cow last spring which he thought would be an excellent producer as she had every indication of being a good milker, and had been awarded first prize in the dairy class at one of the fall fairs by a government judge. But the scales showed otherwise, as this cow only gave 4,000 pounds of milk or over 2,000 less than the average of the other cows in his herd.

An instance of the wonderful difference in the cost of production of different animals in the same herd came to light recently. Taking the farmer's figures for the cost of feed for the year, one three year-old produced fat at a cost of 25 cents per pound, while another animal in the same herd of the same age, produced fat at a cost of 16 cents per pound.'

TABLE XXVI. WOODSTOCK, ONT., DAIRY RECORD CENTRE, 1911.

Herd.	Sire. Breed. Grade.	Sire. Breed. Pure Bred.	Sire. Age. Years.	Number of Acres Cultivated including Pasture.	Number of Cows in Herd.	Breed of Cows. Grade.	Breed of Cows. Pure Bred.	Average Pounds of Milk per Cow sent to Factory.	Milk Production. Average Yield per Cow.	Milk Production. Yield per Acre Cultivated.	Average Cash Receipts per Cow. (See note.)	Cost of Feed per Cow.	Feed Cost of 100 lb. Milk.	Profit or Loss per Cow over Cost of Feed.
									Lb.	Lb.	$ cts.	$ cts.	$ cts.	$ cts.
A	S	.....	2	100	11	Gr.	.....	2,168	3,123	343	31 23	38 00	1 21	Loss 6 77
						10 S								
B	.....	H	2	100	18	H. J.	.....	8,481	8,592	1,540	85 92	51 00	0 59	34 92
C	H	.....	1	100	12	H. & S.	.....	2,613	2,888	346	28 88	30 00	1 03	Loss 1 12
D	S	.....	2	50	6	S.	.....	3,303	5,870	704	58 70	37 50	0 62	21 20
E	.....	H	2	100	12	S. & H.	.....	3,040	4,400	528	44 00	41 90	0 95	2 10
F	.....	S	2	130	17	13 S.	4 S.	5,168	5,595	729	55 95	41 25	0 73	14 70
G	.....	S	1	125	12	S.	.....	3,362	4,120	395	41 20	43 00	1 04	Loss 1 80
H	.....	H	2	100	16	12 H.	4 H.	8,578	8,690	1,390	86 90	54 00	0 62	32 90
I	.....	H	4	97	15	.....	H	7,022	7,502	1,160	75 02	49 00	0 65	26 02
J	.....	H	1	150	9	H. & S.	.....	4,512	5,088	305	50 88	46 00	0 90	4 88
K	H	.....	1	100	16	H.	.....	5,464	6,490	1,038	64 90	39 50	0 60	25 40
L	.....	H	2	20	5	S.	.....	5,817	7,017	1,754	70 17	36 50	0 52	33 67
M	.....	H	2	105	17	H.	.....	8,868	9,434	1,526	94 34	50 80	0 53	43 54
N	.....	A	4	196	23	A.	.....	6,083	6,680	785	66 80	43 10	0 64	23 70
O	.....	H	4	150	7	S. & H.	.....	1,577	2,620	122	26 20	30 50	1 16	Loss 4 30
P	.....	S	1	100	11	S.	.....	2,749	4,150	456	41 50	26 55	0 64	14 95
Q	.....	H	4	92	16	H. J. & A.	.....	4,614	5,659	879	50 59	43 60	0 86	6 99
R	.....	H	2	50	7	H.	.....	8,559	8,773	1,228	87 73	43 25	0 66	44 48
S	.....	A	3	100	10	J.	.....	2,815	4,020	402	40 20	33 25	0 80	6 95
T	.....	H	2	200	26	S. & H.	.....	4,618	5,100	662	51 00	36 00	0 70	15 00
U	.....	H	2	100	18	H. & S.	.....	5,288	5,522	993	55 22	37 00	0 67	18 22
V	.....	H	3	100	18	H.	.....	4,445	4,877	878	48 77	33 75	0 69	15 02
W	.....	H	4	88	10	H.	.....	7,275	7,875	894	78 75	44 60	0 56	34 15
X	.....	H	1	100	8	H. & D.	.....	4,132	5,220	417	52 20	31 50	0 60	20 70
Y	.....	H	2	80	5	D.	.....	2,489	3,429	214	34 29	31 00	0 90	3 29

In this table the yield of milk per acre is seen to vary from 214 pounds up to 1,754.

The average yield of milk per cow varies from 2,620 pounds up to 9,434 pounds.

The cost of feed varies from $26.55 up to $54 per cow.

With four herds there is an apparent loss per cow, herd A being particularly noticeable especially when contrasted with herd R showing a profit of $44.48 per cow.

There is much food for serious reflection in these extraordinary variations in one of the best known dairy districts in Ontario.

The cost of feed per cow in herd P was estimated by the owner at: pasture $9, hay $5, grain $6.75, roots $1.20, corn $1, straw $3.60, total $26.55.

In herd H the cost of feed was put at: pasture $9, ensilage $12, roots $8, grain $15, hay $10, total $54.

TABLE XXVII. ST. HYACINTHE, QUE., DAIRY RECORD CENTRE, 1911.

Herd.	Sire. Breed. Grade.	Sire. Breed. Pure Bred.	Sire. Age. Years.	Number of Acres Cultivated Including Pasture.	Number of Cows in Herd.	Breed of Cows. Grade.	Breed of Cows. Pure Bred.	Average Pounds of Milk per Cow sent to Factory.	Milk Production. Average Yield per Cow.	Milk Production. Yield per Acre Cultivated.	Average Cash Receipts per Cow. (See note.)	Cost of Feed per Cow.	Feed Cost of 100 lbs. Milk.	Profit per Cow over Cost of Feed.
									Lb.	Lb.	$ cts.	$ cts.	$ cts.	$ cts.
A	A	.....	2	90	9	A	.....	4,823	5,980	598	59 80	28 50	0 47	31 30
B	.....	H	2	150	11	H	.....	2,391	2,891	212	28 91	25 00	0 86	3 91
C	A	.....	2	64	10	A	.....	1,682	2,752	430	27 52	23 00	0 83	4 52
D	.....	H	3	500	48	H	H	.....	5,413	519	54 13	58 30	1 07	Loss 4 17
E	.....	A	3	100	9	.....	A	3,214	6,214	559	62 14	30 75	0 49	31 39
F	A	.....	1	66	6	A	.....	1,455	2,638	239	26 38	23 00	0 87	3 38
G	H	.....	2	75	7	C	.....	2,423	5,337	498	53 37	27 00	0 50	26 37
H	H	.....	2	120	12	H	.....	2,160	2,888	288	28 88	25 00	0 86	3 88
I	A	.....	2	120	10	A	.....	3,225	5,345	445	53 45	32 00	0 59	21 45
J	H	.....	2	170	14	H	.....	2,498	3,120	256	31 20	26 00	0 83	5 20
K	A	.....	1	35	4	C	.....	3,833	5,358	612	53 58	24 00	0 44	29 58
L	A	.....	2	110	11	A	.....	2,099	3,008	300	30 08	26 00	0 86	4 08
M	.....	C	2	60	6	C	.....	2,738	4,155	415	41 55	29 00	0 69	12 55
N	A	.....	1	108	10	A	.....	3,711	4,491	415	44 91	25 50	0 56	19 41
O	A	.....	2	100	11	A	.....	3,687	4,324	475	43 24	27 50	0 63	15 74
P	.....	H	2	146	13	C	.....	3,800	4,950	440	49 50	29 00	0 58	20 50
Q	H	.....	3	60	4	C	.....	2,735	5,410	360	54 10	30 00	0 55	24 10
R	A	.....	1	90	8	A	.....	3,665	5,140	456	51 40	29 00	0 56	22 40
S	A	.....	1	120	12	A	.....	2,313	2,938	293	29 38	23 00	0 78	6 38
T	A	.....	3	158	14	A	.....	4,317	5,095	451	50 95	35 00	0 68	15 95
U	C	.....	1	58	6	C	.....	2,014	2,947	304	29 47	23 00	0 78	6 47
V	H	.....	1	60	5	H	.....	3,345	4,429	369	44 29	29 00	0 65	15 29
W	A	.....	1	60	4	A	.....	3,436	4,636	309	46 36	30 00	0 64	16 36
X	H	.....	1	90	5	H	.....	1,919	3,019	167	30 19	25 00	0 82	5 19
Y	.....	H	4	84	8	H	.....	.....	9,507	905	95 07	55 00	0 57	40 07

Table XXVIII.—St. Hyacinthe Dairy Record Centre. Full period of Lactation, 1911.—Summary.

Branch.	No. of Herds.	No. of Cows.	Average Yield.			Average Cost of Feed per Cow.
			Milk.	Test.	Fat.	
			Lbs.		Lbs.	$ cts.
Ecole de Laiterie	8	128	4,857	3·9	190 6	40 23
Grand Rang	6	53	4,770	3·9	186·2	28 05
Point du Jour	6	46	4,188	4·1	173·0	23 35
St. Cesaire	1	9	4,858	4·0	198·6	25 25
St. Francois	14	119	4,626	3·9	183·8	28 09
St. Hyacinthe le Confesseur	9	66	4,557	4·0	185·6	28 69
Ste. Rosalie	5	43	6,326	4·0	254·4	33 68
Village St. Thomas d'Aquin	6	56	5,515	4·0	223·0	30 00
Total and Average	55	520	4,891	4·0	195·2	31 35

Mr. Adelard Hamel, who was in charge of the Dairy Record Centre at St. Hyacinthe, has prepared the accompanying tabular statements.

SOME CONTRASTS AT ST. HYACINTHE, QUE.

It may be noted that the average cost of feed per cow is put at a very moderate figure. On comparing the seven different branches a wide variation is noticed. For instance the 46 cows at Point du Jour are estimated to be fed at a cost of $23.35 each, but the 128 in the Dairy School branch average $40.23 per cow.

The various herds composing these branches also vary considerably. At St. Thomas d'Aquin one herd is fed at an average cost of $33.75, but another is $22.

The average yield of milk is not proportionate to the cost of feed. In the two herds just referred to the first averages 5,190 pounds of milk and 210 pounds of fat; the second almost the same, 5,013 pounds of milk and 209 pounds of fat, with a difference in cost of feed of $11.75 per cow.

In two herds in the Dairy School branch, both producing milk which averages 4·0 per cent of fat at a feed cost of $25 per cow, one average is 3,741 pounds of milk per cow, the other only 2,953 pounds, a difference of 788 pounds per cow. In another two herds in the same branch one averages 283 pounds of fat at a feed cost of $30.75, but the other averages only 196 pounds of fat at a feed cost of $58.30, or 87 pounds *less* costing $27.55 per cow *more*.

At Point du Jour is found a herd averaging 5,330 pounds of milk at a cost for feed of $23; while another, at a cost of $22 averages only 3,984 pounds or *1,346 pounds less per cow*.

At St. Thomas d'Aquin 12 cows average 160 pounds of fat at a feed cost of $28, while at a cost of $30.60 for feed 14 cows average 299 pounds of fat. *139 pounds more* for $2.60 more feed per cow.

At Ste. Rosalie the extremes are an average production of *168* pounds of fat by 6 cows at a cost of $24, and an average from 8 cows of *371* pounds of fat at a feed cost of $55 per cow. In both cases the average herd test is 3·9 per cent of fat. The 6 cows have a total yield of 1,010 pounds of fat, but the 8 cows give 2,964 pounds. The 6 cows average only 4,326 pounds of milk, but the 8 cows average *9,507 pounds*.

TABLE XXIX.—Differences in Yield in the 7 Branches, St. Hyacinthe, Que.

Branch No.	No. of Cows.	Average Yield per Cow.			Price per 100 lb. Milk.	Total Cash Receipts per cow with Butter at 25 cents per pound.
		Milk.	Fat.	Fat.		
		Lbs.	p. c.	Lbs.	$ cts.	$ cts.
1	56	5,513	4·0	223	1 18	65 05
2	46	4,188	4·1	173	1 20	50 26
3	53	4,769	3·9	186	1 14	54 37
4	128	4,857	3·9	191	1 14	55 37
5	119	4,626	3·9	184	1 16	53 66
6	66	4,557	4·0	186	1 19	54 23
7	43	6,326	4·0	254	1 17	74 01

This table shows the differences in the yields of milk and fat per cow at each of the 7 branches, and that the revenue per cow varies from $50.26 to $70.01, *a difference of $23.75.*

TABLE XXX.—Contrast between Two Herds, one Grade, the other Pure Bred, St. Hyacinthe, Que.

Herd Number 1.

The sire and all cows are pure bred Ayrshire.

Cow No.	Age.	Average Yield.			Value of Butter at 25 cts. per lb.	Profit per Cow.
		Milk.	Fat.	Fat.		
		Lbs.	%	Lbs.	$ cts.	$ cts.
1	2	5,180	4·4	227	66 25	35 50
2	3	4,785	4·3	206	60 00	29 25
3	4	6,440	4·1	266	77 50	46 75
4	5	6,555	4·5	297	86 63	55 88
5	6	7,885	4·9	385	112 25	81 50
6	6	6,870	4·5	309	90 12	59 37
7	10	7,015	4·1	291	84 88	54 13
Total		44,730	.....	1,981	577 63	362 38
Average		6,390	4·4	283	82 52	51 00

	$ cts.
Average Cost of Feed per Cow	30 75
Average Cost of Production per 100 lbs. of Milk	48·1
" " 1 lb. of Fat	10·8

Herd Number 2.

The sire and all the cows are grades.

Cow No.	Age.	Average Yield.			Value of Butter at 25 cts. per lb.	Profit per Cow.
		Milk.	Fat.	Fat.		
		Lbs.	%	Lbs.	$ cts.	$ cts.
1	4	3,550	3·7	131	38 25	12 50
2	7	4,700	3·6	168	49 00	23 00
3	5	3,710	3·6	133	38 75	12 75
4	9	3,980	3·7	151	44 00	18 00
5	2	2,460	4·0	98	28 58	2 58
6	2	3,175	4·0	127	37 00	11 00
7	9	2,275	3·9	88	25 65	0 35 loss.
Total.....		23,850	.....	896	261 23	79 23
Average...		3,407	3·79	128	37 32	11 25

	$ cts.
Average Cost of Feed per Cow.....	26 00
Average Cost of Production per 100 lbs. of Milk.....	76·3
" " 1 lb. of Fat.....	20·3

Notice the apparent loss with one 9 year-old cow in the second herd, even with the low cost of feed.

The difference in the net profit in favour of the pure breds amounts to *$39.75 per cow.*

Each cow in herd No. 1 gives milk testing 4·1 or higher. Even the 2 year-old gives 227 pounds of fat, which is 59 pounds more than the best cow in herd No. 2.

It pays to get a good sire.

Table XXXI.—Showing the percentage of Cows giving Less than 4,000 pounds of Milk, excluding 2 year-old heifers—St. Hyacinthe, Que.

Branch No.	Total Number of Cows Recorded.	Number of Cows giving less than 4,000 lb. Milk.	Percentage.
			%
1	55	10	18·18
2	44	16	36·36
3	50	13	26·00
4	123	28	22·76
5	107	24	22·43
6	54	11	20·37
7	40	1	2·50
	473	103	21·77

Notice the great difference between No. 2 and No. 7.

Nearly all the herds in No. 2 have only grade sires at their head, but in No. 7 the sires are pure bred.

TABLE XXXII.- KENSINGTON, P. E. I., DAIRY RECORD CENTRE. 1911.

Herd.	Sire. Breed. Grade.	Sire. Breed. Pure Bred.	Sire. Age. Years	Number of Acres Cultivated Including Pasture.	Number of Cows in Herd.	Breed of Cows. Grade.	Breed of Cows. Pure Bred.	Average Pounds of Milk per Cow sent to Factory.	Production. Average Yield per Cow.	Production. Average Yield per Cow.	Production. Yield per Acre ultivated	Average Cash Receipts per Cow. (See Note)	Cost of Feed per Cow.	Feed Cost of 100 lbs. of Milk.	Feed Cost of 1 lb. of Fat.	Profit or Loss Per Cent Over Cost of Feed.
									Lbs. Milk.	Lbs. Fat.	Lbs. Milk.	$ cts.	$ cts.	$ cts.	cts.	% cts.
A	H	[1]H	.....	90	13	Gr.	.....	1,949	4,440	165·1	641	44 40	21 26	47	12	23 14
B	H	....	2	95	7	A.H.S.	...	2,205	4,044	152·4	298	40 44	32 64	80	21	7 80
C	.....	H	3	126	7	Gr.	.....	2,461	3,505	124·2	194	35 05	24 57	70	19	10 48
D	H	.....	2	100	6	A. & S.	.....	3,059	4,855	186·1	485	48 55	21 91	45	11	26 64
E	.....	H	3	62	6	A.H.S.	....	3,720	5,713	211·3	552	57 13	28 25	49	13	28 88
F	H	.....	2	90	7	H. & J.	.....	1,641	4,270	162·8	333	42 70	18 42	43	11	24 28
G	.....	H	4	100	9	H. & A.	.....	2,262	4,256	140·0	382	42 56	32 55	76	23	10 01
H	.....	H	2	105	10	H.& Gr.	.....	1,937	3,297	107·6	314	32 97	21 80	66	20	11 17
I	S	.....	1½	72	5	H.[1] Gr.[4]	.....	2,329	4,415	161·4	306	44 15	24 90	56	15	19 25
J	.....	H	4	58	7	H.J.Gr.	...	1,959	3,332	116·2	402	33 32	24 85	74	21	8 47
K	.....	H	2	110	8	H. & S.	.....	2,608	4,556	145·6	331	45 56	27 93	61	19	17 63
L	.....	S	2	75	4	S.	.....	3,756	5,490	184·0	292	54 90	45 07	82	24	9 83
M	.....	H	2	96	8	H.	....	2,287	3,738	127·8	311	37 38	22 12	59	17	15 26
N	H & S	.....	2	70	4	S. & Gr.	.....	2,885	4,743	173·0	271	47 43	20 00	42	11½	27 43
O	.....	H	3	75	4	AH&Gr	....	2,283	4,940	177·6	263	49 40	24 87	50	14	24 53
P	.....	H	9[2]	102	10	H.	.....	2,840	4,604	158·8	451	46 04	27 65	60	17	18 39
Q	.....	S	3	80	4	S. & J.	....	.....	4,893	197·6	244	48 93	36 12	73	18	12 81
R	.....	A	1½	120	15	A.	.....	.....	3,635	135·1	454	36 35	31 93	87	23	4 42
S	.....	A	1½	90	6	A.	A.	.....	4,408	178·4	294	44 08	35 75	81	20	8 33
T	.....	A	1½	195	16	A.	A.	.....	3,700	143·9	303	37 00	25 84	69	17	11 16
U	.....	H	2	77	7	Gr.	....	.....	3,061	108·7	278	30 61	32 71	1 06	30	Loss 2 10
V	.....	J	3	77	5	A. & J.	.....	.....	3,305	126·6	214	33 05	27 70	83	21	5 35
W	H & A (¾ ¼)	.....	3	100	8	Gr.	.....	.....	3,977	140·9	318	39 77	25 56	64	18	14 21
X	.....	S	2½	85	7	S.	.....	.....	5,065	188·3	476	50 65	26 00	51	13	24 65
Y	.....	A	2	80	7	A.	...	.....	3,373	122·4	295	33 73	26 50	78	21	7 23

The average feed cost of milk as recorded on 48 farms from which the above 25 herds are selected, is 65 cents per 100 pounds.

The average feed cost of fat on the same farms is 17·6 cents per pound.

In this table it will be noted that:—

The average herd yield of milk varies from 3,061 to 5,713 pounds per cow, a difference of 2,652 pounds.

The yield per cultivated acre varies from 194 to 641 pounds of milk.

The cost of feed per cow varies from $18.42 to $45.07.

The feed cost of 100 pounds of milk varies from 42 cents to $1.06.

The feed cost of 1 lb. of fat varies from 11½ to 30 cents.

The profit per cow above the cost of feed runs as high as $28.88, but in one herd there is an apparent loss of $2.10.

The herd of 7 cows where the cost of feed averages $18.42 per cow was fed 4 tons hay at $8, 10 tons straw at $4, 2 tons mixed fodder at $2.50, 140 bushels turnips at 10 cents, 10 bushels potatoes at 35 cents, pasture $5 per cow.

The 17 cows whose feed cost $45.07 were given 4 tons hay, 4 tons straw, 5 tons corn fodder (at $2.50), 2 tons mixed fodder, 112 bushels oats (at 40 cents), 500 bushels turnips, and pasture, also valued at $5 per cow.

In the herd where the fat cost 11·5 cents per pound, the 4 cows average 173 pounds each, and were fed 1 ton hay, 8 tons straw, 200 bushels turnips, and pasture valued at $5 per cow for the season.

In the herd where the fat cost 30 cents per pound the 7 cows averaged 108·7 pounds each, and were fed 3½ tons hay, 11 tons straw, 4 tons mixed fodder, 55 bushels oats, 900 bushels turnips, and pasture valued at $5 per cow.

Mr. Harvey Mitchell, who was in charge of the Dairy Record Centre at Kensington, Prince Edward Island, states:—

'The importance of providing green feed when pastures fail was certainly an outstanding feature down here last season; the flow of milk in August as compared with that of July was about one-half less with those who did not have peas and oats, while some fell off about one-third.

To give you some idea of the conditions here, one man said he had twenty-six head of cattle and depended on two wells for water; the cattle had only got water every second day since August, he could only get water enough from the two wells to supply half of them in a day and he would have to drive them two miles to get them to a brook. There has been some rain here but not enough to bring up the wells and springs. The Kensington factory was nearly 300,000 pounds of milk short of last season during August and September.

Then again it is important to know what is back of a pure bred bull. I know of different cases that came to my notice last season where two year-old heifers from scrub cows and pure bred bulls, did not do as well as heifers the same age from scrub bulls; thus making the average farmer prejudiced against the use of pure bred sires. I know of several cases of pure bred bulls being brought down here where the results from using them have been a hindrance rather than an improvement to the stock. I think this a point that cannot be emphasized too strongly.'

CHAS. F. WHITLEY.

APPENDIX VI.

CREAMERY COLD STORAGE BONUSES.

APPICATIONS IN 1911.

There were 65 applications received for creamery cold storage bonuses in 1911-12. Of this number, 18 of the cold storages failed to qualify for the bonus. Some of them were poorly constructed and others were not operated in such a manner as to give good results.

The following are the names of the 47 creameries which have received the bonus.

QUEBEC.

Name of Creamery	County.	Owner.	Amount.
			$ cts.
Athelstan	Huntingdon	H. A. Hampson	100 00
Bissonnette	Montcalm	Roch Gamache	100 00
Beauceville West	Beauce	Majorique Gilbert	100 00
St Benoit Labre	Beauce	Elzear Maheu	100 00
Fontarabie	Maskinonge	Napoleon St. Louis	100 00
Charrette's Mills	St. Maurice	Jos. Paquin	100 00
Contrecœur	Verchères	Sergius Cormier	100 00
St. Felix de Valois	Berthier	A. J. Desrosiers	100 00
Foster	Brome	J. H. Leclerc	100 00
St. Francois	Beauce	Jos. Bourque	100 00
St. Gabriel	Berthier	Norbert Rocheleau	100 00
Gentilly	Nicolet	Geo. Barabé	100 00
St. Gédéon	Beauce	Eugène Moreau	100 00
St. Hyacinthe	St. Hyacinthe	Chas. Duquette	100 00
Jersey Mills	Beauce	Ludger Caron	100 00
St. Jean Port Joli	L'Islet	Fred. Caron	100 00
Lanoraie	Berthier	Phil. Allard	100 00
Maria	Bonaventure	Rev. J. Gagne	100 00
Milan	Compton	Louis St. Pierre	100 00
Miquelon	Mégantic	J. E. Beauchemin	100 00
Mont Laurier	Labelle	J. H. Charles	100 00
Ulverton	Drummond	R. V. Hurk	100 00
St. Valentin	St. Jean Iberville	Société Co-operative	100 00
Ville Marie	Pontiac	A. J. Aubin, M.D.	100 00

ONTARIO.

Name of Creamery.	Owner.	Amount.
		$ cts.
Brantford	R. T. Stillman	100 00
Brantford	J. M. Hyde	100 00
Coboconk	John Ham & Son	100 00
Drumbo	Walter Murray	100 00
St. George	J. Malcolm & Son	100 00
Guelph	Stratton & Taylor	100 00
Hagersville	C. M. Kauffman	100 00
Nelson	Nelson Cream Association	100 00

ONTARIO—*Continued.*

Name of Creamery.	Owner.	Amount.
		$ cts.
Omemee	L. A. Southworth	100 00
Peterborough	G. A. Gillespie	100 00
Port Perry	Jas. Stonehouse	100 00
Rathburn	Wm. Newton	100 00
Ridgeway	John Sherk	100 00
Strathroy	J. A. Waddell	100 00
Wellesley	McLaren Imperial Cheese Co	100 00
Shearer	J. J. Hogan	100 00

ALBERTA.

Calgary	P. Pallesen	100 00
Red Deer	Butter & Cheese Association	100 00

SASKATCHEWAN.

Langenburg	Thos. W. Cogland	100 00
Lloydminster	O. B. Hartley, sec	100 00
Melford	Melford Creamery Co	100 00
Wadena	Wadena Creamery Co	100 00

PRINCE EDWARD ISLAND.

Dunstaffnage	W. A. Miller	100 00

466	creameries	have received	the full bonus of $100	$46,600
145	"	"	$75	10,875
139	"	"	50	6,950
Total 750	"	"		$63,485

Circular D & C. S. No. 4 is reprinted here to give the conditions under which the bonus will be paid in future.

D. & C. S.—CIRCULAR No. 4.

DEPARTMENT OF AGRICULTURE.

OFFICE OF THE

DAIRY AND COLD STORAGE COMMISSIONER.

OTTAWA, February 27, 1912.

RE CREAMERY COLD STORAGE BONUSES.

To Creamery Owners:

I am authorized to announce that Creamery Cold Storage Bonuses will be paid in 1912, and until further notice, on the following terms and conditions:—

The full bonus of $100 will be paid *only* for creamery cold storages constructed on what is known as the Circulation System, the plans and specifications for which are contained in Bulletin No. 10 of the Dairy and Cold Storage Series. Blue prints of these plans on a working scale are furnished on application.

The Cylinder System which has been recognized in the past, has proved to be unsatisfactory, for the reason that we rarely find that the filling of the cylinders is properly attended to, and there is often insufficient salt used to make that system effective. The Circulation System, while costing more to install than the Cylinder System, is cheaper in the end if the labour of filling the cylinders every day is taken into account.

A bonus, not to exceed 50 per cent of the invoice price, will be paid to creamery owners who install 'Eureka,' or other refrigerators of similar construction, but in no case will the amount of the bonus paid for such refrigerators be more than $100.

Applications for bonuses must be made before the first of May, in order to secure payment that year. Forms of application will be supplied on request to the Dairy and Cold Storage Commissioner, Ottawa. Monthly temperature record blanks will also be supplied, on which a daily record of temperature must be made. These temperature reports are to be sent to the Department regularly at the end of each month, beginning with the month of May.

Creamery owners who make application for bonuses on the 'Eureka' or other similar refrigerators, will be required to furnish a copy of the invoice, certified correct by the refrigerator manufacturers and also by the applicant for the bonus.

An inspector will examine all cold storages for which bonuses are asked some time during the season, and if they are found to have been constructed according to the plans and specifications and to have been properly maintained during the warm weather, the bonus will be paid at the end of the manufacturing season.

J. A. RUDDICK,
Dairy and Cold Storage Commissioner.

APPENDIX VII.

SUBSIDIES FOR PUBLIC COLD STORAGE WAREHOUSES.

CONTRACTS IN 1911-12.

Contracts have been entered into, during the fiscal year, for the payment of subsidies, according to the terms of the Cold Storage Act, with the following firms or persons:—

Campbell & Hamilton, Calgary, Alta.
The Edmonton Produce Co., Edmonton, Alta.
The Moose Jaw Cold Storage Co., Moosejaw, Sask.
Moores & Bidwell, Saskatoon, Sask.
The City Cold Storage Co., Regina, Sask.
J. H. Sansregret, Joliette, Que.

Applications are now (March 31, 1912) under consideration from:—

The Brantford Cold Storage Co., Brantford, Ont.
O'Keefe & Drew, Chatham, Ont.
Central Canada Terminal Storage Co., Fort William, Ont.
Brandon Creamery & Supply Co., Brandon, Man.
Standard Fish & Fertilizer Co., Queen Charlotte Islands, B.C.

LIST of Public Cold Storage Warehouses erected under contracts for subsidies since the Cold Storage Act was passed in 1907, and now in operation.

Name and Location.	Refrigerated Space in cu. ft.	Cost.	Total Subsidy.
		$ cts.	$ cts
N.B. Cold Storage Co., St. John, N.B.	744,000	167,000 00	50,100 00
Scott & Hogg, Peterborough, Ont	48,000	14,500 00	4,350 00
Halifax Cold Storage Co., Port Hawkesbury, N.S.	37,960	30,386 69	9,115 99
Cold Storage, Ltd., Woodstock, N.B.	37,161	25,577 00	7,673 10
J. D. Moore Co., St. Marys, Ont.	105,000	36,019 62	10,805 88
Lemon Bros., Owen Sound, Ont	33,000	20,000 00	6,000 00
The Chatham Fruit Growers' Association, Chatham, Ont	44,430	19,350 00	5,805 00
Davis and Fraser, Charlottetown, P.E.I.	150,000	50,000 00	15,000 00
The B. Wilson Co., Victoria, B.C.	84,000	75,000 00	22,500 00
The Trenton Cooperage Mills, Ltd., Trenton, Ont.	166,446	50,919 41	15,275 82
Dominion Fish and Fruit Co., Quebec, Que.	225,000	222,843 22	66,852 96
Maritime Cold Storage Co., Lockeport, N.S.	59,940	60,000 00	18,000 00
St. Lawrence Produce Co., Brockville, Ont.	100,000	52,000 00	15,600 00
Flavelles Limited, Lindsay, Ont.	131,510	53,000 00	15,900 00
Gunn's Limited, Harriston, Ont	57,069	40,000 00	12,000 00
Campbell and Hamilton, Calgary, Alta.	111,050	75,000 00	22,500 00

The warehouses at Port Hawkesbury, N.S., Peterboro' Ont., and Owen Sound, Ont., have been enlarged to about double their original capacity, as given in the foregoing statement, but no further subsidy has been paid on that account.

The large cold storage warehouse at Prince Rupert, B.C., for which a contract was entered into in 1909-10 is nearly completed and will be in operation about midsummer. The City Cold Storage Company, Regina, also have the construction of their warehouse well under way. It is expected that the erection of all other warehouses now under contract, including the Acadia Cold Storage at Halifax, N.S., (contract reported in 1910-11), will be begun as soon as weather conditions permit in the spring.

For a further list of cold storage warehouses in operation before 1907, when the Cold Storage Act was passed, see Report for 1908.

FACTORS OF COST IN COLD STORAGE CONSTRUCTION.

There are several factors which enter in the cost of a cold storage warehouse, figured on a cubic foot basis, and these factors cause great variations. In the first place, the building itself may be constructed of wood, brick or re-enforced concrete, with all the differences in cost which the use of these materials implies; the insulation, if for a wooden building, may be combined with the structure itself, at a minimum cost for material and erection, or it may be of expensive fire proof or semi-fire proof character and cost many times as much as the cheaper material.

Then, again, much depends upon the kind of storage which is to be provided. If, as in the case of some of the warehouses given in the foregoing list, the space is all required for fish freezing or storage in which temperature ranging below Zero F. are frequently employed, the cost of insulation and machinery is necessarily very much greater than for warehouses where only non-freezing temperatures are required, such as for the storage of cheese, fruit and vegetables.

There is still another factor, and that is the size of the warehouse. The cost per cubic foot naturally being very much less for a large building than it is for a small one.

All these things have to be taken into consideration when estimating the cost of a cold storage warehouse.

J. A. RUDDICK,
Dairy and Cold Storage Commissioner.

APPENDIX VIII.

SOME STATISTICS OF THE EXPORT TRADE IN DAIRY PRODUCE.

TOTAL EXPORTS OF CHEESE AND BUTTER IN FISCAL YEARS 1880 TO 1912 INCLUSIVE.

Butter.			Cheese.		
Year.	Quantity.	Value.	Year.	Quantity.	Value.
Years ended June 30.	Lbs.	$	*Years ended June 30.*	Lbs.	$
1880	18,535,362	3,058,069	1880	40,368,678	3,893,366
1890	1,951,585	340,131	1890	94,260,187	9,372,212
1891	3,768,101	602,175	1891	106,202,140	9,508,800
1892	5,736,696	1,056,058	1892	118,270,052	11,652,412
1893	7,036,013	1,296,814	1893	133,946,365	13,407,470
1894	5,534,621	1,095,588	1894	154,977,480	15,488,191
1895	3,650,258	697,476	1895	146,004,650	14,253,002
1896	5,889,241	1,052,089	1896	164,689,123	13,956,571
1897	11,453,351	2,089,173	1897	164,220,699	14,676,239
1898	11,253,787	2,046,686	1898	196,703,323	17,572,763
1899	20,139,195	3,700,873	1899	189,827,839	16,776,765
1900	25,259,737	5,122,156	1900	185,984,430	19,856,324
1901	16,335,528	3,295,663	1901	195,926,397	20,696,951
1902	27,855,978	5,660,541	1902	200,946,401	19,986,281
1903	34,128,944	6,954,618	1903	229,099,925	24,712,943
1904	24,568,001	4,724,155	1904	233,980,716	24,184,566
1905	31,754,303	5,930,379	1905	215,733,259	20,300,500
1906	34,031,525	7,075,539	1906	215,834,543	24,433,169
Years ended Mar. 31.			*Years ended Mar. 31.*		
1907 (9 months)	18,078,508	4,011,609	1907 (9 months)	178,141,567	22,006,584
1908	4,786,954	1,068,703	1908	189,710,463	22,887,237
1909	6,326,355	1,521,436	1909	164,907,139	20,384,666
1910	4,615,380	1,010,274	1910	180,859,886	21,607,692
1911	3,142,682	744,288	1911	181,895,724	20,739,507
1912	8,844,402	2,077,916	1912	163,450,684	20,888,818

DETAILED EXPORTS OF DAIRY PRODUCTS FOR YEAR ENDED MARCH 31, 1912.

To all Countries.	Quantity.	Value.
		$
Cheese ..... lbs.	163,450,684	20,888,818
Butter ..... "	8,844,402	2,077,916
Cream ..... galls.	886,266	792,687
Condensed milk ..... lbs.	4,389,350	305,678
Casein ..... "	1,021,197	38,302
Fresh milk ..... galls.	7,771	975
Total value		24,104,376

COMPARATIVE VALUE OF DETAILED EXPORTS FOR YEARS ENDED MARCH 31, 1909, 1910, 1911 AND 1912.

——	1912.	1911.	1910.	1909.
	$	$	$	$
Cheese	20,888 818	20,739,507	21,607,692	20,384,666
Butter	2,077,916	744,288	1,010,272	1,521,436
Condensed milk	305,678	469,406		
Fresh milk	975	4,276	541,372	90,520
Cream	792,687	1,714,528		
Casein	38,302	37,009		
	24,104,376	23,709,014	23,159,336	21,996,622

EXPORTS TO UNITED STATES.

Values of Dairy Products Exported to the United States during the Years ended March 31, 1908, 1909, 1910, 1911 and 1912.

——	1912.	1911.	1910.	1909.	1908.
	$	$	$	$	$
Cheese	31,653	36,034	23,995	19,428	17,732
Butter	103,819	91,313	199,854	18,246	38,899
Cream	792,595	1,714,528			
Condensed milk	3,983	11,474	220,446	8,256	2,737
Casein	38,302	37,009			
Sweet milk	975	3,257			
	971,327	1,893,615	445,295	45,930	59,368

Down to the beginning of the fiscal year 1911, the exports of sweet milk, cream, condensed milk and casein were included under one head in the Trade and Navigation returns.

STATEMENT OF EXPORTS OF CHEESE BY COUNTRIES IN FISCAL YEARS 1902 TO 1912, INCLUSIVE.

(Years ended June 30, 1902 to 1906, and years ended March 31, 1907 to 1912.)

To	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
	$	$	$	$	$	$	$	$	$	$	$
Great Britain	19,620,239	24,620,004	24,099,004	20,174,211	24,300,908	21,909,879	22,763,736	20,268,166	21,481,566	20,577,542	20 733,064
Australia	6,862	6,913	6,247	5,411	5,350	245	525	223	171	88	58
British Africa	868	2,514	7,559	10,612	16,623	18,261	16,362	12,466	16,425	22,601	26,873
B. W. Indies	18,542	44,674	34,253	36,176	25,509	13,666	27,533	26,940	24,035	25,844	26,259
B. E. Indies	60	40	315	62	20	...	...	...	...	...	
British Guiana	1,833	2,165	1,193	2,571	3,860	3,143	6,228	4,452	5,232	4,747	7,872
Other British Possessions	746	553	216	...	...	...	9	1	1,011	1,575	
Hong Kong	...	161	1,253	1,079	1,029	...	851	2,452	733	1,077	1,407
New Zealand	216	983	1,039	1,642	1,795	1,690	1,362	54	1,267	467	645
Newfoundland	20,100	21,334	21,754	35,171	30,992	37,748	35,792	41,163	36,912	39,855	44,435
Belgium	...	...	10	22	287	...	2,080	...	...	1	
Argentina	...	14	...	...	...	...	...	...	...	...	
Cuba	350	331	211	102	811	...	57	...	17	419	53
China	1,409	1,734	1,899	2,013	2,195	2,206	1,572	568	756	1,040	1,302
Danish West Indies	332	2,037	1,936	2,046	2,056	1,568	1,985	1,937	2,453	2,148	2,704
France	...	...	44	700	7,203	...	10	81	...	5,534	38
Japan	821	1,076	1,609	759	775	1,071	1,444	2,200	1,208	2,708	1,419
Philippine Islands	...	289	100	...	...	...	...	...	...	...	
St. Pierre	158	120	356	341	875	318	190	364	311	338	274
United States	12,038	7,779	5,386	14,182	16,082	6,900	17,732	19,428	23,995	36,034	31,653
Dutch West Indies	538	...	...	...	...	...	...	...	...	...	
Norway and Sweden	...	...	...	104	994	...	...	...	...	...	
Germany	1,179	170	...	364	...	54	3	...	102	...	
Bermuda	...	...	...	12,505	14,033	9,080	9,245	3,174	11,385	1,126	10,494
Dutch Guiana	...	15	23	18	13	9	...	...	...	...	
Egypt	...	30	...	...	...	...	...	...	...	...	
Mexico	...	...	159	329	1,594	630	168	499	108	72	56
French West Indies	...	7	...	...	...	...	...	...	...	...	
Central America	...	...	...	80	...	...	347	3	...	112	
Holland	...	...	...	...	97	110	...	...	...	...	
U. S. of Colombia	...	...	...	...	68	...	...	...	...	...	
Other countries	...	...	...	...	...	...	6	...	5	142	212
Totals	19,683,291	24,712,943	24,184,566	20,300,500	24,433,169	22,006 584	22,887,237	20,384,666	21,607,692	20,739,507	20,888,818

STATEMENT OF EXPORTS OF BUTTER BY COUNTRIES IN FISCAL YEARS 1902 TO 1912 INCLUSIVE.

(Years ended June 30, 1902 to 1906; years ended March 31, 1907 to 1912.)

To	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
	$	$	$	$	$	$	$	$	$	$	$
Great Britain	5,459,300	6,554,014	4,400,774	5,568,999	6,802,003	3,805,925	823,761	1,273,484	587,493	401,621	1,769,510
British West Indies	71,816	112,968	127,790	80,323	87,085	59,313	85,371	95,370	76,026	70,444	54,365
British Guiana	6,796	7,565	6,412	8,929	11,654	8,113	12,861	7,711	9,497	10,682	4,865
Other British Possessions	284	72	.....	.....	.....	.....	5	.....	544	1,423	86
Newfoundland	47,066	69,017	82,422	82,387	48,283	56,516	34,931	54,552	50,074	57,198	76,691
China	78	141	1,763	562	761	5,041	1,319	.....	.....	.....	
Cuba	243	202	796	658	285	1,034	720	96	22	985	158
Danish West Indies	1,581	6,077	5,868	4,473	4,560	3,664	4,939	4,418	4,697	1,438	2,155
French West Indies	.....	1,020	.....	.....	.....	.....	.....	.....	.....	.....	
Germany	101	13	25,641	.....	.....	.....	.....	.....	9,777	.....	
Hawaii	.....	115	.....	.....	.....	.....	.....	.....	.....	.....	
Hayti	.....	38	.....	.....	.....	.....	.....	.....	.....	.....	
Japan	1,013	1,816	6,027	6,496	9,373	9,062	4,258	3,619	1,002	840	240
St. Pierre	27,102	28,655	26,598	21,827	17,668	17,615	18,749	14,740	14,036	18,560	8,216
United States	41,149	10,225	6,497	70,580	33,965	3,539	38,899	18,246	199,854	91,313	103,819
British Africa	12	133,958	16,417	4,914	2,056	265	.....	22,458	1,873	10,460	2,596
Mexico	.....	4,685	.....	.....	1,268	484	265	660	936	59	171
Brazil	1,608	9,084	.....	.....	.....	.....	.....	.....	.....	.....	
Dutch West Indies	2,040	.....	.....	.....	.....	.....	.....	.....	.....	.....	
U.S. Colombia	92	1,175	2,272	200	1,747	2,145	.....	1,105	832	.....	69
Australia	260	6,187	.....	.....	.....	.....	.....	.....	.....	.....	
Bermuda	.....	.....	.....	50,482	47,045	33,900	33,177	14,273	43,638	54,665	41,209
France	.....	.....	14	14,440	4,155	.....	.....	.....	.....	.....	
San Domingo	.....	1,351	.....	.....	.....	.....	.....	.....	.....	.....	
Holland	.....	.....	8,175	13,680	.....	.....	.....	.....	.....	.....	
Venezuela	.....	6,240	.....	.....	.....	.....	.....	.....	.....	.....	
Belgium	.....	.....	10	116	.....	.....	.....	.....	.....	.....	
Central America	.....	.....	686	1,062	3,431	4,932	9,448	7,074	2,500	3,948	3,268
Corea	.....	.....	.....	15	.....	.....	.....	.....	15	.....	
Dutch Guiana	.....	.....	.....	186	30	40	.....	.....	48	.....	
Turkey	.....	.....	.....	50	.....	21	.....	.....	.....	.....	
Porto Rico	.....	.....	.....	.....	170	.....	.....	.....	.....	.....	
Panama	.....	.....	.....	.....	.....	.....	.....	4,229	7,320	19,881	10,000
Austria-Hungary	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	
Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	771	498
Totals	5,660,541	6,954,618	4,724,155	5,930,379	7,075,539	4,011,609	1,068,703	1,521,436	1,010,274	744,288	2,077,915

CHEESE IMPORTS INTO THE UNITED KINGDOM, FROM BRITISH TRADE RETURNS, YEARS ENDED DECEMBER 31.

From	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Canada	1,900,556	1,858,767	1,925,835	1,698,847	1,541,502	1,566,546	1,607,074	1,473,275
United States	224,830	175,256	233,445	114,300	105,555	54,617	38,247	150,321
Netherlands	233,601	214,033	229,341	241,551	279,401	285,329	231,818	207,917
New Zealand	84,947	78,626	126,216	192,301	264,995	368,531	453,785	397,845
Other countries	110,363	116,000	123,957	125,234	114,633	115,067	125,427	118,964
Total	2,554,297	2,442,682	2,638,794	2,372,233	2,306,086	2,390,090	2,456,351	2,348,322
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Canada	74·4	76·1	73·0	71·7	66·8	65·5	65·5	62·7
United States	8·8	7·2	8·8	4·8	4·6	2·3	1·6	6·4
Netherlands	9·1	8·7	8·7	10·2	12·1	12·0	9·4	8·9
New Zealand	3·3	3·2	4·8	8·1	11·5	15·4	18·5	16·9
Other countries	4·4	4·8	4·7	5·2	5·0	4·8	5·0	5·1
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

BUTTER IMPORTS INTO THE UNITED KINGDOM, FROM BRITISH TRADE RETURNS, YEARS ENDED DECEMBER 31.

From	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Russia	404,717	461,140	606,549	657,649	639,118	601,712	584,040	638,284
Sweden	206,791	188,209	182,803	226,740	238,929	312,142	345,684	360,357
Denmark	1,708,619	1,630,363	1,675,761	1,818,811	1,857,103	1,764,027	1,726,091	1,707,178
Germany	4,080	5,372	10,701	7,297	3,195	2,965	3,481	.....
Netherlands	252,262	209,897	195,366	168,496	244,356	148,567	154,537	104,655
France	371,061	348,442	319,401	281,306	394,612	413,306	361,249	171,080
United States	68,754	84,874	157,312	1,063	39,540	693	756	23,316
Australia	480,778	450,293	545,827	598,986	409,106	384,619	639,093	874,399
New Zealand	294,982	300,418	311,672	313,863	221,395	278.581	362,674	276,446
Canada	268,607	292,117	190,968	34,753	47,877	22,522	16,805	61,936
Other countries	180,354	176,741	140,898	101,192	115,590	133,699	131,129	85,305
Total	4,241,005	4,147,866	4,337,258	4,210,156	4,210,821	4,062,833	4,325,539	4,302,956
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Russia	9·5	11·1	14·1	15·6	15·2	14·8	13·5	14·8
Sweden	4·9	4·5	4·2	5·4	5·7	7·7	7·9	8·4
Denmark	40·3	39·3	38·6	43·2	44·1	43·4	39·9	39·7
Germany	0·1	0·1	0·3	0·2	0·1	0·07	0·09	.....
Netherlands	5·9	5·1	4·5	4·0	5·8	3·7	3·9	2·4
France	8·7	8·4	7·1	6·7	9·7	10·1	8·4	4·0
United States	1·6	2·0	3·6	0·03	0·9	0·01	0·01	0·5
Australia	11·3	10·8	12·5	14·2	9·5	9·5	14·7	20·3
New Zealand	6·9	7·5	7·2	7·5	5·3	6·9	8·3	6·4
Canada	6·3	7·0	4·4	0·8	1·1	0·6	0·3	1·4
Other countries	4·5	4·2	3·5	2·4	2·6	3·3	3·0	2·1
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

N.B.—1911 figures unrevised.

IMPORTS OF DAIRY PRODUCE, FOR CONSUMPTION IN CANADA, DURING THE YEAR ENDED MARCH 31, 1912.

—	Quantity.	Value.
	Lbs.	$
Cheese	919,189	178,811
Condensed Milk	133,365	9,981
Casein	.....	20,933
Butter	3,874,587	1,016,418
Total	.....	1,226,143

IMPORTS OF BUTTER BY COUNTRIES.

—	Quantity.	Value.
	Lbs.	$
From—Great Britain	700,900	201,219
Australia	101,640	21,642
New Zealand	2,139,944	569,171
Denmark	1,120	282
Norway	1,500	225
Turkey in Asia	165	38
United States	929,318	223,841
Total	3,874,587	1,016,418